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THE NATIONAL NURSERYMAN

JANUARY 1916

Published Monthly at Rochester, N. Y., U. S. A., in Behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General

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Established 1847.

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Peach, Gooseberries,
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H. P. Roses, Etc.

Will be pleased to quote on your list of wants

I. E. Ilgenfritz' Sons Co.

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E. S. WELCH, Proprietor

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A Complete Line of High Quality Nursery Stock for

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APPLE TREES—Over 100 Varieties
CHERRY, PLUM, PEAR, PEACH
BLACKBERRIES—Large stock root cutting plants
GOOSEBERRIES, CURRANTS, RASPBERRIES,
ORNAMENTAL TREES, SHRUBS, VINES
ROSES—Immense stock hardy kinds

PLANTING STOCK

Fruit Trees Stocks, Ornamental Shrubs and Deciduous Seedlings

Ask for Winter Trade List.

Send us your list of wants

Our general trade list for Spring 1916 will be issued about January 1st.

SAPA. 9-16 and 11-16 (On Native Plum Roots)

The most popular of the Hansen Hybrids

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Strong 2 yr. No. 1 plants. Home grown.
At a bargain price.

The Jewell Nursery Co.

Wholesale Nurserymen

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There is just one kind of Berberry Thunbergii Seedlings we grow

Top Notch in All Respects

ORDER NOW

We are growing 500 acres of other lines of stock. Our JANUARY BULLETIN will tell the story. If you don't receive it, write at once, it is a money-saver for you.

C. R. BURR & CO.,

MANCHESTER, CONN.

For Spring 1916

300,000 APPLE, 2 & 3 year, splendid trees

75,000 CHERRY, 2 year, none better

200,000 CHERRY, 1 year, fine

40,000 PEAR, 1 & 2 year

40,000 PLUM, 1 & 2 year, fine

Also large stock of ELM, NORWAY, SUGAR, SOFT MAPLE, CATALPA BUNGII, and a general assortment of other ornamental trees, shrubs, hedge plants, perennials, small fruits, etc.

We can furnish ornamental trees in almost any size wanted.

A fine growing season, a fine lot of stock

C. M. Hobbs & Sons

Marion County, - - Bridgeport, Ind.

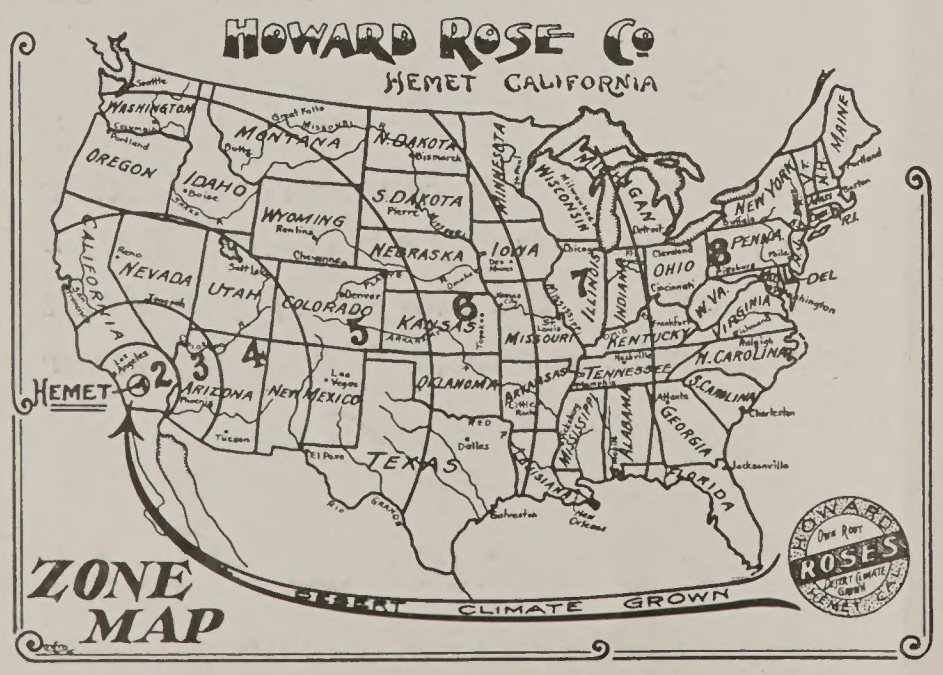
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OWN ROOT ROSES

For JAN. FEB. and MARCH

By Express— Rate ¼c. per Zone number, Guaranteed not to exceed (i.e. - In 5th. Zone to our prices add 1¼ cents) Send for our prices, on printed stationery, please.

By Freight— Via. Cold Storage, Deliveries after Feb. 25, 1916, Only Hard Sorts.



Now is the time to order

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From European Nursery Centers.

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Pear, Apple, Myrobolan, Mahaleb, Mazzard Manetti, Multiflora and Quince. Also a full line of Ornamentals for lining out. Best packing and grading. December and February shipments from **Vincent Lebretons Nurseries, Angers, France.**

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Full list of varieties, also Aquatics, Rock Plants, etc.; low prices. Fall or Spring shipments from **Royal Tottenham Nurseries, Dedemsvaart, Holland.**

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MANETTI, Gooseberries (Whinham Industry, Whitesmith, Keepsake, Crown Bob, etc.), 2 and 3 years. Fall or Spring shipment from **John Palmer & Son, Annan, Scotland.**

BAY TREES from Belgium. All sizes, hardy Lilies from Japan, all varieties.

RAFFIA, Red Star, XX Superior, Arrow and AA West Coast Brands. Bale lots or less.

Shipping. We have our own Custom House department, with shipping connections at all shipping ports. We attend to the procuring of permits and all formalities.

McHutchison & Co., The Import House

17 Murray St., New York

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We Have Gone Into Winter Quarters.

That was a strenuous year,—the late anno Domini 1915 ! We stayed afield as long as we could, until chased inside by the cold. Any how, our cellars are full. We have a lot of stock corded-up and heeled-in under the covers of our mammoth frost-proof cellars. Our experienced men are taking good care of it, and we know it will be in first-class condition to send out in the Spring.

Now, while ice, snow and winter cold forces everybody in by the radiators, we are all busy thinking. You, our patrons, are no doubt figuring out what you will probably need to meet your Spring sales. You will be preparing Want Lists. Possibly you are already prepared to place positive orders. We have a capable office force inside those ice-coated walls pictured above, doing everything possible to get the coming year's campaign under way. We would be pleased to figure on your want lists; we make a strong bid for your orders. Our new catalogue and trade list are nearly ready for distribution, and will carry the story of our business to you in detail.

Thanking you for favors of the year past, and wishing you all a Happy and Prosperous New Year, we are

Sincerely yours,

THE STORRS & HARRISON CO.

ESTABLISHED 1854 — PAINESVILLE, OHIO. — 1200 ACRES 45 GREENHOUSES

—W. B. COLE—

PAINESVILLE, - - . OHIO.

SPECIAL ATTENTION

APPLES—Dwarf. Good Assortment.
PEARS—Standard.
CURRANTS—Large stock of Black Naples and Champion.
GRAPES—Concord and Niagara.
RASPBERRIES—Transplants and Tip plants.
BLACKBERRIES—Root Cutting plants. Strong in Mersereau, Snyder and Ohmer.

Ornamental Trees.

CATALPA BUNGEI—One, two and three year heads.
ELM—American and Scotch, 1 to 3 inches caliper.
HORSE CHESTNUT—All sizes.
MAPLE—Sugar. Sizes from 1½ to 4 inches. Superior, straight, well furnished stock.
SYCAMORE—European, 1 to 3 inches.

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ALTHEAS—Assorted, 3 to 4 feet.
BARBERRY—Thunbergi. All sizes.
FORSYTHIA—Suspensa.
PHILADELPHUS—Assorted.
SNOWBERRY—White and Red.
SPIRAEA—Opulifolia Aurea and Van Houtei.
ROSES—General Assortment.

Evergreens.

ARBOR VITAE—American, 3 to 5 feet.
ARBOR VITAE—Pyramidalis, 3 to 5 feet.
KALMIA LATIFOLIA—18 to 24 inches.
RHODODENDRONS—18 to 24 inches.

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PRIVET—California, Ibota and Vulgaris, all sizes.
BARBERRY—Thunbergi. All sizes.

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CELASTRUS SCANDENS—Strong.
HONEYSUCKLE—Hall's Japan.
IVY—English, 3 to 4 feet canes.

Perennial Plants and Bulbs.

FOREST SEEDLINGS

Trees and Ornamental Shrubs

A complete line of Altheas, Berberry, Calycanthus, Cornus stolonifera, Deutzias Forsythias, Privets, Laurus Benzoin, Spireas, Weigelias, Maples, Chestnuts, Red Buds, Hack Berry, Persimons, Elms, Poplars, American Beech, Japan Walnuts, Butternuts, Etc.

Trade List Now Ready
Ask for same

Forest Nursery and Seed Company

McMinnville, - - - Tenn.



Jack Pine 12-18

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EVERGREENS

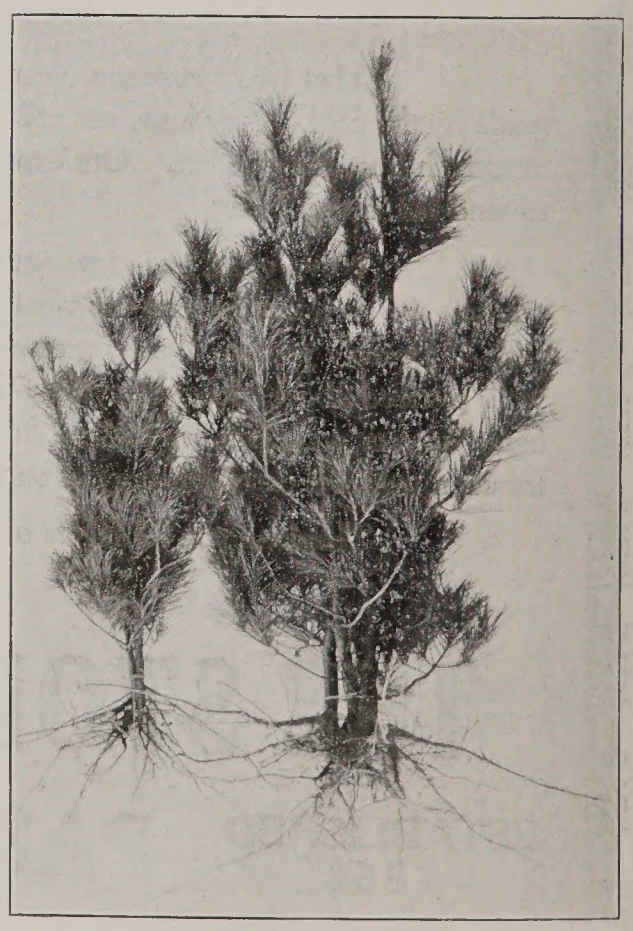
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Rhinelander Nursery Co.

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Our Prices Will Surprise You.

Our Stock Will Please You.



White Pine 12-18—18-24

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"Made in America":—

Home grown, acclimated stock;—the kind you can DELIVER to your customers, COLLECT for, and expect it TO GROW.

Get those ROSES, TREE HYDRANGEAS, DUTCH PIPE, AMPELOPSIS, and CLEMATIS right here at home, without the worry and uncertainty of importing from Europe, to say nothing of the advanced freight and insurance rates, and the extra expense of importing under present war conditions. These are SPECIALTIES with us, and our ability to grow, and to sell, the things formerly imported almost altogether, has resulted in the

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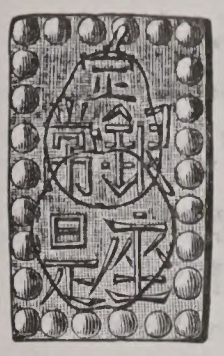
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Send us your Want List; or, better, come and see our stock.

Jackson & Perkins Company

Newark, - New York

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Huntsville Wholesale Nurseries

Huntsville, Ala.

MILTON MOSS, Prop.

We offer for Spring of 1916 in large quantities as usual:

S P E C I A L T I E S

APPLES—Commercial varietles, one and two year, in large supply. As fine in quality as ever grown.
PEARS—Kieffers, one and two years old. A much smaller crop than heretofore.
CHERRIES—On Mazzard. Two year, Bing, Lambert, Napoleon, Black Tartarian.
CHERRIES—On Mahaleb. One and two years. Ea. Richmond, Dyehouse, Montmorency, Wragg, Royal Duke, in small supply.
PEACHES—We excel in Peaches, and of these we will have as fine a stock as we have ever grown, both in one year and June Buds.
ROSES—Budded. We will have a large and fine stock of leading Hybrid Perpetuals and Mosses grown at Huntsville.
PRIVET—Amoor River (South). Retains its foliage longer and holds its color better than California Privet.
PECAN SEEDLINGS—Huntsville grown from selected nuts collected along the Gulf Coast. Thin shell.

See Price List for Particulars.

Address, HUNTSVILLE WHOLESALE NURSERIES
HUNTSVILLE, ALA.,

Hill's Evergreens

You can work up a good profitable trade in Evergreens if you have the right kind of stock. Our main specialty for over half a century has been the propagation of young Evergreen stock for the wholesale trade in immense quantities at low prices.

We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S. A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

YOU want to keep posted on Evergreens;
WE want to become better acquainted with you;
Let's get together.

The D. HILL Nursery Co., Inc.

Evergreen Specialists
LARGEST GROWERS IN AMERICA.
Box 401 - Dundee, Ill.

Have you seen and examined the quality and finish of our

Rawhide Brand of Shipping Tags and Tree Labels

printed or plain, strung or wired?



This stock is especially adapted to the most severe usage, being thoroughly waterproof & weatherproof. "Once used, always used."

Send for samples and prices. Our references are the largest nurserymen in the United States.

The Denney Tag Co.

West Chester, Pennsylvania

W. FROMOW & SONS

We specialize in Hardy American Rhododendrons and offer all the best varieties with brightest colors, hardiest sorts and largest trusses. They are all grown in open fields on black sand and sandy loam.

We can also offer largely Dwarf, Climbing and Standard Roses All the newest most popular varieties.

Common Beech and River's Purple grafted Beech to offer in very large quantity. Clean straight stuff and well rooted. Can quote on stock transplanted Spring 1914 or 1915.

Full particulars of the above and other stocks, nearly 300 acres in extent, contained in our wholesale catalogue free on application.

WINDLESHAM NURSERIES

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Headquarters for Small Fruit Plants

1200 Acres "At it 25 Years"

Strawberries	Currants	Rhubarb
Raspberries	Gooseberries	Asparagus
Blackberries	Grape Vines	Horseradish
Dewberries	Privet	Hardwood Cuttings

100,000 transplanted Raspberry, Blackberry and Dewberry plants for retail trade. See wholesale list before placing your order.

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Can supply a fine lot. The price is right, quality considered. How many for you?

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Pomona, N. C.

For SPRING 1916.

A choice lot of Apple, Plum, Cherry, Pear, Apricot, Peach, Currants, Roses, Barberry, Thum., Cal. Privet, Hydrangea P. G., Bud Sticks and Currant Cuttings in the leading varieties. Don't place your order without getting our prices.

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Grower and Exporter of Fruit-Tree Stocks, Forest Tree Seedlings, Rose Stocks, Shrubs, Vines, and Conifers for Nursery Planting.

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Editors of the "H. A." LOWDHAM, NOTTS, ENGLAND

ESTABLISHED 1893 **THE NATIONAL NURSERYMAN** INCORPORATED 1902

The Official Organ of the American Association of Nurserymen

The only Trade Journal devoted exclusively to the interests of growers and dealers in nursery stock.

Edited by a practical nurseryman, Ernest Hemming, Flourtown, Pennsylvania to whom all correspondence pertaining to the Editorial Department, should be addressed.

Nurserymen cannot afford to be without a trade paper. The advertising pages, patronized by all the leading nurserymen throughout the world, will save many dollars to the subscriber. These pages are a record of the stock offered for sale.

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Livin gston Building, Rochester, New York

The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

Stark Bros. Nursery & Orchards Co.

LOUISIANA, MO.

We Offer for Spring 1916

15,000 Oriental Planes from 1¼ to 3 inch caliper

A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches Norway Maples, 2 inch caliper and up.

Also a large and complete assortment of Ornamental Trees and Flowering Shrubs. Among our large stock of Fruit Trees we call especial attention to our surplus of:

10,000 Keiffer Pears, 2 and 3 years
20,000 Stayman's Winesap Apples, 11-16 in. and up
10,000 Downing Gooseberries, 2 years. No. 1
200,000 Apples, 2 year buds, fine

Hoopes, Bro. & Thomas Company

Maple Avenue Nurseries

PHILADELPHIA OFFICE
222-3-4-5 Stephen Girard Bldg.
21 So. Twelfth Street

West Chester, Pa.
Established 1853



P. D. Berry, Wholesale Nurseryman, is offering for Spring 1916

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, California Privets, Barberry THUNBERGII, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

Quotations furnished by letter.

P. D. BERRY,

Dayton, - Ohio

We have the Largest Stock of Forest Seedlings and Shrubs

TO BE FOUND IN UNITED STATES

We offer 500,000 Berberry Thunbergii, 1 year 6 by 24 inch, Althea Rosea, Calycanthus, Spiraeas, Deutzias, Forsythias, Dogwoods, Honeysuckles, Philadelphus, Privets and large variety Shrubs, Forest Seedlings, Catalpas, Red Bud, Magnolias, Elms, Box Elder. Beech, Sycamores and a great variety of Seedlings.

We are headquarters for

Hard Wood Cuttings

Send for Trade List

Riverview Nursery Co.

McMinnville, - - Tenn.
R. F. D. No. 2

Shrubs.

The growing season with us this year has been wonderful. Plenty of rain and heat, and this, with the necessary cultivation, has produced for us an exceptionally fine lot of shrubs. We offer in large quantities:—

Spiraea Anthony Waterer	Highbush Cranberry
Persian Lilac	Snowball, Common & Jap.
Spiraea Van Houttei	Mock Orange
Kerria, double	Bush Honeysuckle

Also many other trees and shrubs

Japanese Maples.

We call special attention to our Japanese Maples. We have them in a fine assortment of varieties and sizes. Some extra fine, large specimens.

Send for our Wholesale Trad. List

Thomas Meehan & Sons,
Wholesale Nurserymen,
Dresher, Penna.

We Are Prepared To Supply The Trade.

ROSES, FIELD-GROWN. Own roots and budded.
ABELIA GRANDIFLORA. Transplanted, field-grown.
BERBERIS JAPONICA.
AZALEA INDICA. (Home-grown).
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LIGUSTRUM JAPONICUM.
LUCIDUM, NEPALENSE, and other good varieties, fine bushy plants.
SATSUMA ORANGE. Field-grown, budded on Citrus Trifoliata.
BIOTA AUREA NANA. (Berckmans' Golden Arborvitae)
BIOTA AUREA CONSPICUA.
RETINOSPORA. In variety.
JUNIPERUS. In variety.
WISTARIAS. Grafted, best sorts.
APPLES.
JAPANESE PERSIMMONS.
ENGLISH WALNUTS.
MULBERRIES.
SPIRAEA THUNBERGII. A beautiful lot of stocky plants.

A fine stock of **Hackberries, Koelreuteria, Tulip Poplar, Magnolia Purpurea, Texas Umbrella, Double-flowering Peaches, Sycamore and Elms.**

Send us a list of your wants and let us give you quotations.

P. J. BERCKMANS CO., Incorporated
FRUITLAND NURSERIES AUGUSTA, GEORGIA

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APPLE QUINCE PEAR CHERRY
PEACH PLUM

A Fine Block of
Own Root Roses

ORNAMENTAL TREES SHRUBS
BERRIES CLEMATIS
EVERGREENS PEONIES PHLOX
PYRAMIDAL and STANDARD
TREE BOX, 3 to 6 feet

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SPECIAL ATTENTION given to Dealers, complete lists and carload lots.

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63 Years 700 Acres

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BY THE MILLIONS

Arbor Vitae	Jack Pine
Austrian Pine	Norway Spruce
Black Hill Spruce	Pinus Ponderosa
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Douglas Spruce	Scotch Pine
Engelmanii Spruce	White Pine
European Larch	White Spruce

All sizes. Ask for prices.

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Also the following **APPLES** in 1-2 in., 5-8 in. and 11-16 in. sizes at special prices:
Ben Davis, Duchess, Florence, Gano, Hibernal, Iowa Beauty, N. W. Greening, Okabena, Patten's Greening, Peerless, Peter, Pewaukee, Scott's Winter, Soulard, Strawberry Crab, Transcendent, University, Virginia, Wealthy, Whitney and Wolf River.

SHERMAN NURSERY COMPANY
CHARLES CITY, IOWA



OUR TREES WILL STAND ALONE

The bundle of peach trees here shown is standing alone, upheld by the strong and out-spreading roots. It is this kind of roots that make our trees grow. The trees in the picture are specimens of our First Class peach trees. Note that they are tall and large in calipre.

Peach Trees!

Northern Grown Stock.

WELL GRADED

Strong Rooted.

Monroe County Soil and Climatic Conditions are Most Ideal for Peach Tree Growing. We are in a Position to Grow More and Better Peach Trees Than Anyone Else in the World.

We Want to Furnish Trees for Your Requirements.

Write for PRICES and SAMPLES. Write at once.

The Greening Nursery Co., MONROE, MICHIGAN.

FORTY-NINTH YEAR

T. S. HUBBARD CO.

FREDONIA, N. Y.

The longest established and best known growers of

Grape Vines

And the largest stock in the United States



CURRANTS and GOOSEBERRIES

A fine stock of leading varieties. One and two years.

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The largest and best stock of root-cutting plants in this country All the best varieties. Snyder in great quantity. Our blackberry plants are as well furnished with fibrous roots as our well-known grape vines.

QUALITY, SERVICE, PRICE:

These three; but the greatest of these is Quality. The Combination makes Value. I want discriminating, careful buyers to write for my offers on

AMPELOPSIS VEITCHII
CLEMATIS—Paniculata and Large-flowering
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SPIREA—Van Houttei and Anthony Waterer
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Elegant stock, well-graded, properly packed; value, plus.

FRUIT-TREE SEEDLINGS and Young Ornamental Stock for nursery-planting sold for

Mr. F. DELAUNAY,

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Good grower; even grader; careful packer.
Lowest freight rates and such service as comes of many years' experience in handling importations.

APPLE SEED, Native and French.
KANSAS APPLE SEEDLINGS
Shipments from Topeka or Newark.
MANETTI ROSE STOCKS, French or English.

Send your Want List; I may have just what you need; if not, I may know where to pick it up, to your advantage and mine. It takes time to locate the right stock; I give it all my time. I want to be of service to you; I can; let me.

JOHN WATSON

NURSERYMAN

NEWARK - - - - NEW YORK

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Containing complete description. Everything newly written, up-to-date and beautifully illustrated in colors and sepia.

The National Nurseryman

Livingston Building Rochester, N. Y.

POOR BRICK

In building a house the owner selects poor bricks because they are cheap--hardly--he selects the strongest and best, and pays the market price.

In planning for a good block of Apple trees the grower buys the poorest Apple Seedlings--the cheaply grown--the carelessly handled--the damaged roots--because they are cheap----well, hardly--he is buying the best the market can furnish.

To this discrimination in buying we attribute the doubling of our sales in Apple Seedlings during the past three years.

We have a good supply of all grades both in straight and branched roots. The stocks are thoroughly matured--they are clean--strong and healthy.

We are glad to submit samples and quote prices.

F. W. Watson & Co.,

Topeka, Kansas.

Apple and Pear Seedling Specialists.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK
The National Nurseryman Publishing Co., Incorporated

Vol. XXIV. ROCHESTER, N. Y., JANUARY, 1916. No. 1

Benefits of the Reorganized American Association and Our Relations Thereto.

Read before the Western Association of Nurserymen

By J. R. Mayhew

I am led to believe, when I consider the subject assigned me by your program committee, that the committee had in mind the benefits we can reasonably expect from the reorganization of the American Association of Nurserymen, rather than that I should attempt to discuss the benefits which have already accrued from said reorganization. It would be remarkable were those who are responsible for the working of the new plans adopted at Detroit in June able to point thus early to any marked benefits arising therefrom, hence I am ready to believe that I am expected to address myself to the benefits the present administration hopes will result because of the reorganization of the Association.

I believe it is in the mind of every member of the present executive committee that they are expected to make a favorable and progressive report to the convention which assembles next June in Milwaukee, and to that end the present administration is lending its energies assiduously. Believing that at this time the executive committee could well afford to consider some problems which confront the administration, President Welch has called a meeting of the executive committee to meet at this time in Kansas City, and I take the liberty of inviting every nurseryman here to offer suggestions to the executive committee if in his mind there are problems which this committee should consider at this time.

On several occasions I have urged that we be not too hasty in expecting results from the reorganization of less than a year ago. Progress in all the activities of life is a matter of growth, of education, of much thought and labor. The plans as adopted at Detroit in June is a beginning and, if I mistake not, it will take many years of faithful labor on the part of our officers, coupled with the co-operation of the nurserymen generally, before we can hope for results that will be encouraging.

One of the greatest drawbacks, if not the greatest, with which we will have to contend is the large number of nurserymen who are not, and probably never will be, members of the association. I have no idea how many nurserymen there are in the United States, but it is a well known fact that the membership of the American Association at this hour is less than five hundred. When we remember that many states alone have almost as many men engaged in the nursery business as there are members of the American Association, it gives us a pretty clear idea as to the point I am making. If we consider the relative number of nurserymen in any one state who are members of the American Association to the number of men engaged in the nursery business, the relation is small indeed. This very question is one of the greatest problems which confront the present administration and it will confront every administration in the future. These people, largely farmer growers, not only are not in sympathy with the plans that members of this and other associations are striving for, but many of them are anagonistic thereto. To illustrate, many of you remember that a few years ago we had quite an agitation, of the question of replacing trees that die, and as the result of this agitation, there were resolutions presented and adopted by the national and district organizations, also by many of the state organizations, condemning this vicious and assinine practice. These very fellows I am speaking of, guerillas in the truest sense, are to-day making capital out of the resolutions adopted by our associations condemning the practice of replacing, and a credulous public aids and abets them. I think I am not drawing on my imagination when I say that the plans which may find sanction of the executive committee of the American Association of Nurserymen, and which will be for the upbuilding of the nursery interests of America, will find strong opposition from many of these so-called nurserymen over the country generally. What we are to do with this element is a question.

If you will pardon a personal reference, I am endeavoring to establish a new place in the city of Dallas, Texas, and to illustrate the character of business I come in contact with I beg to be allowed to read you an advertisement clipped from the paper just a day or so ago.

(Advertisement)

To be sure, this party has no idea of living up to his advertisement and is wholly irresponsible from almost

any point of view, and could not, if his existence depended upon it, perhaps, make bond for $500.00, yet he is there in competition with men who stand pledged to progressive methods and to the policy of non-replacement. I say this because I believe, and I want you to know, that the fight is a long one, and while I believe that in the end the principles that are right and that are progressive will win, let us not become discouraged if the end is not reached in a year.

When adjournment was had at Detroit the nurserymen carried home with them a feeling of optimism such as had not characterized a meeting for many years. I believe that this spirit of optimism was worth all that the Detroit convention cost and I believe that upon this foundation we are to build a more serviceable organization. I was impressed with a statement that came from one of the western nurserymen, and by the way one of the most prominent nurserymen in the United States, that in his opinion the Detroit convention had accomplished more than had been accomplished in the past twenty years. I value, and so do you, the opinion of D. S. Lake as I do that of few men, and to have him bear testimony to what had been accomplished, together with many others, stimulated me to believe the Detroit convention had been worth while.

But I feel sure that what you want me to tell you is what can we, as nurserymen, reasonably expect in the way of benefits from the reorganization. As I have intimated to you, this is destined to be a long drawn out fight, and the basis of all we may hope to accomplish must be education. I therefore believe the most important thing we have to do at this particular time is to inaugurate a vigorous and intelligent campaign along the lines of publicity. The people, who are densely ignorant of all questions pertaining to our business, must be taken into our confidence and must be taught to discriminate against inferior methods and inferior policies, and in favor of the nurserymen whose business is built upon service. To my mind there is no way to reach the shyster except to turn on the search lights—to reach him through public opinion. Just how long it will take to accomplish this is a question, and I am candid enough to



This Orchard produced 6000 bushels of Yates Apples. J. O. Kelly & Sons, Jeff, Alabama.

J. O. Kelly & Sons, nurserymen, Jeff, Alabama, are in the nursery and orchard business. This year they have had the best apple crop in their experience. Over 7000 bushels including both the late and early varieties. November the 8th they were harvesting their late apples. While their orchards may compare but poorly with those in the apple states and after learning more from failures than success, they are convinced that with a proper knowledge to begin with and the proper care of the trees, apples can be grown in Alabama to an advantage.

say to you that I believe when this is accomplished you and I will have been gathered to our fathers many years, but I am also led to hope the work we have inaugurated will be carried on after we have passed away. Through this campaign of publicity not only will methods that are unfair and shyster be exposed, but planting will be stimulated, therefore the demand for our products will be increased. Just what plans will best serve our purpose in this matter and at this time is probably open to discussion. It is a settled fact in my own mind, however, that the executive committee can at this time well afford to engage the services of an expert publicity man who shall, under the direction of the executive committee, keep favorably before the reading public the nursery interests of America. I believe that the money so expended would be the best money your officers could spend and that the resutls would, in every sense, be satisfactory. I therefore say to you without hesitancy that one of the benefits to be derived from the reorganized American Association of Nurserymen is that of an aggressive campaign for publicity.

Another benefit, the results of which are already apparent, is that of improved conditions relative to unfair legislation. We are at this time as not heretofore prepared to defend ourselves against unfair legislation and, furthermore, to prosecute to completion plans inaugurated some time since looking to uniform legislation within the United States. Heretofore it has been impossible to accomplish the best along this line because of lack of funds to handle this important work, but with the increased fees made possible under the reorganized plans it is hoped this difficulty has been removed. In this connection, not only for your own good but on behalf of the committee on legislation, I want to insist that you use the services of the general attorney of the American Association of Nurserymen, which will cost you not one cent. This attorney's services are at your disposal any day in the year and the success of the legislative committee's plans demand that the services which they have provided shall be utilized. There is but one reason, to my mind, why this contract with Mr. Smith will not prove a profitable investment on the part of the American Association, and that is the refusal on the part of the members to use the services provided. Some time since in endeavoring to straighten out some matters relative to the Oklahoma law, I had occasion to call Mr. Smith into conference, and he rendered me very valuable assistance in all matters intrusted to him. I want to again urge every member of the American Association to avail himself of the splendid services of our general attorney whenever the necessity arises.

Another of the benefits which will come to the organized nursery interests by reason of the plans adopted at Detroit is solidarity of purpose. To-day as not heretofore in the history of the association the organization is truly representative of the nursery interests of America, and not only is this true but it is *the* organizations of the country. It is a well known fact, and I say this without criticism of any of the other organizations, that in the multiplicity of organizations there is strong probability of jealousies and resultant conflict. To-day as not heretofore in the history of our business, we look to the American Association of Nurserymen for initiative and for guidance in all matters— as the one organization where all of our interests merge, and to all other district and state organizations as auxiliary to the American Association. I think this position is correct and because we happen to live in the South or the West is little reason why our aim should be to make our particular organization separate from rather than auxiliary to one big representative association.

In rewriting the constitution and by-laws of the American Association at Detroit, then, the aim of the committee of twelve was to make this Association so entirely representative of the nursery interests of the United States that there would not in the future be occasion for jealousies, and no occasion for conflict. These, to my mind, are some of the benefits that have, to some extent already, and which will in the future accrue to the nursery interests by reason of the reorganized American Association.

Our relations as Western Association of Nurserymen are, as I have already stated, correlative. The leading nurserymen of the Western Association, those who have been responsible for its existence in the past and those who will be responsible for its existence in the future, are also members of the American Association, and, I take it, are in hearty accord with the plans inaugurated last June at Detroit. The same thing is true of the Southern Association, and is largely true of all state organizations. This being the situation, I can see no reason why it should not be the aim of this and all other auxiliary organizations to make the American Association of Nurserymen *first in its affections*. As the matter now stands, to further illustrate, the majority of officers of the American Association are members of the Western Association, hence I take it that we, as a Western Association, have to-day not only a great interest in what the present administration hopes to accomplish but, because of this fact, we have a greater pride in the American Association than we could have otherwise. Our relation, then, as Western Association of Nurserymen, is to contribute of our money and our time toward working out the plans that have been and which will be inaugurated, realizing that the benefits which will accrue to the members of the Western Association will be greater than would be possible to hope for otherwise. The Western Association has in the past, and will continue in the future to render valuable service to the nursery interests of the great west and southwest. The same thing is true of the Southern Association and of our numerous state organizations, but it is not too much to expect that all of these different organizations will fall squarely into line with the plans inaugurated at Detroit and endeavor, by every known means, to make the American Association of Nurserymen the most effective, efficient organization possible. Any other position we might take would smack of sectionalism, and nurserymen are too big to allow any feeling of sectionalism to creep into their affairs.

These, gentlemen, are some of the benefits I feel we have reason to expect from the reorganization of the American Association of Nurserymen, and these are our relations thereto.

THE HORTICULTURIST AS KING

Address of C. S. Harrison, at the Annual Meeting of the Minnesota Horticultural Society, December 7, 1915.

SOME of the promises regarding our future stagger us with their vastness.

"To him that overcometh will I grant to sit with me in my throne." But how is it down here? "Thou crownest him with riches and honor. Thou hast put all things under his feet."



Gathering Yates Apples in November in the orchards of J. O. Kelly & Sons, Jeff, Alabama.

Into fields where feet of angels come not, we are chosen as partners of the Heavenly Father to make this a more fruitful and beautiful world.

In our life work much depends on our attitude regarding our calling. We can plod like an ox or like Markams semi-brute man with the hoe and make that the badge of servitude to toil, or we can make it a wand in a magician's hand to call forth radiant forms of beauty from the somber earth to smile upon us and load the air with fragrance. We can live down in the basement of Horticulture or in the upper story.

Man is coming to his own. The savage trembled at the lightning stroke which shivered the mighty oak. Little knew he that here was a giant at play waiting to be tamed and harnessed so he could be the most obedient servant—ready at the master's beck to leap a continent, dive under an ocean, draw heavy trains, and run acres of machinery. Man reaches out his wand and steam, gas, and oil rise up to do his will.

If, with the advance of civilization, he wants beautiful things to adorn person or home, he finds subterranean gardens of precious gems almost priceless in value—gems that are immortels—flowers that never fade—prophets all of the "glory to be revealed."

You have heard of the marvelous Persian garden of gems—four hundred feet in length and ninety feet wide—made to imitate the most beautiful blooms of earth. It cost millions upon millions. Do you know that it is in your power, wih the advance of floriculture, to create gardens far more resplendent in beauty—great gardens

of delight fit for the touch of angel's feet, while the whole is flooded with billows of sweetest perfume. Three years ago that was a patch of barren earth. Now you have pulled down a section of paradise upon it and condensed there the tints of the morning, the splendors of the evening, the beauty of the rainbow, and the effulgence which flames in the mantles of the suns.

I love to think of Nature as a person—first born daughter of God. Her head white with the snows of the centuries, her cheeks radiant with the flush of recurrent springtime, emblems of eternal youth. She takes you by the hand, leads you into the forests, talks to you of the soul of the tree, tells you how intelligent it is. There is one standing in the open. It has performed a feat no civil engineer can emulate. Think of those roots so busily scurrying around in the earth, gathering food to send up the cambium high-way to nourish the tree. See the tent cords thrown out to anchor it against the storms. Look at those trees on the outskirts. Among wild animals the strongest are on guard on the outside to protect the herd. So these sentinel trees guard their wards against the storms. Fool man cuts down the guards and the wards fall before the sweep of the storms. Mother Nature—dear friendly soul—takes you into her holy of holies and reveals her mysteries. She makes a confidant of you. She throws open her doors and shows you the wide vistas of a new land you may enter and glorify. Follow her direction and what a friend you have. Cross her, thinking you know more than she does, and she laughs at you. She takes you into the garden and the nursery and discloses her wonders and helps you to work miracles. You plant seeds and bulbs, and beauty rises to greet you. Did you ever think of the royal position of the florist and Horticulturist?

The sacred poet speaks of the "labor of the olive." What a flood of light that opens upon us. "All things are yours." Let us go out into the grove you have planted. I once took off my hat to myself. While living in the Republican Valley near the 100th meridian, I planted some bull pine seed. When the little trees were large enough, I transplanted them in rows six feet apart and started a miniature forest. Twenty-five years after I went to see them. The rows were straight. The trees had fine bodies six inches through. They were miniature columns in a temple, holding up a canopy of green. The ground was covered with a thick carpet of needles. It was one of the most pleasing sights I ever saw. Then I thought "What if I had planted forty acres?" I would have had a Mecca to which horticultural pilgrims would have flocked from hundreds of miles. I planted the trees and the faithful servants kept on working day and night and that beautiful grove was the result. Every tree you plant is your servant and how faithful it is—no shirking—always at it whether you are looking or not. Look at that cherry tree. How the tiny rootlets scurry through the soil—faithful children gathering food to send up to their mother. Look at that flood of bloom. Then the fruit grows till a mass of red gleams from the leafy coverts. There is a great difference between a patch of brown earth and your faithful Jonathan. What a marvel that little patch of soil, absolutely milked by those busy fingers, and the extracts of it glowing in red beauty on the tree. Talk of chemists. Those quiet rootlets surpass them all.

If you want to be in the realm of miracles, lay down your hoe a while and sit among your flowers. Your brain devised the plan, your hand planted the seeds and bulbs. "Behold the lilies, how they grow." Now sit there and think it out. At your feet are artists no human skill may imitate. Two peonies grow side by side. Golden Harvest opens with yellow petals fading to purest white. In the center is a miniature Festiva Maxima—blood drops and all. How can those roots send up the golden tints; the snowy white and the red, and never have the colors mixed? Close by is a Plutarch, deep brilliant red. The roots intermingle. How is it possible to pick out of the dull soil, Nature's eternal drab, that brilliant color for your peony? There are your Iris—the newer sorts absolutely undescribable. There are a dozen different shades in a single bloom. But those blind artists at work in their subterranean studios never make a mistake. The standards must have just such colors, the falls just such tints, and where did they get that dazzling radiant reflex such as you see on Perfection, Monsigner and Black Knight? But it is always there shimmering in the sunlight. There is a fairy—a pure snowy queen. How was that sweetness and purity ever extracted from the scentless soil? Every bloom uncorks a vial of perfume which has the odor of the peach blossom.

Did you ever sit down in your Kingdom and see what a royal throne you occupied? What a reception your flowers give you. The ambrosia and nectar of the feasts of the dieties of fable are overshadowed by the fragrance and sweetness of your worshippers. It would seem that every flower, like a royal subject, was bent on rendering the most exalted honor to her king.

No company of maidens preparing for nuptials were ever arrayed like these. Each one is striving to do her best. The highest art ever displayed in the palaces of kings is no comparison to the beauty and splendor of your reception. By divine right you are supreme. The fertile soil puts her tributes at your feet. For you, all the viewless influences of nature are at work. For you, the sun shines and the showers fall. So brothers, don't creep, but mount up as on eagles wings. Invoice yourself and see how great you are. Don't live all the while in the basement. Spend some time in the upper story of your calling.

You are not making the earth weep blood. You are not spreading on the fields a carpet of mangled forms. You are not dropping ruin and death from the skies or polluting God's pure waters with submarines. You are not turning all your energies into the work of destruction, despoiling the treasures of art and the pride of the ages, and turning the fairest portions of the earth into desolations. You are not changing yourselves into demons to gloat over starvation and ruin.

You are soldiers of peace. Behind you was the somber earth. You touched it with the wand of your power, and beauty, health, and pleasure spring up to bless you.

See what you have done! You have clothed the barrenness of the dreary plain with gardens, orchards, and

forests. You have been at work with God and glorified a vast empire and now he has blessed the work of your hands.

Instead of the air sodden with tears and tremulous with the wail of widows and orphans, you are welcomed with the joy of children and the delight of mothers. All along the lines of progress you receive the most cordial ovations, and when you pass on to the land where "everlasting Spring abides" may you receive the royal welcome "Well done, good and faithful servant."

Why I Should Retain My Membership in the American Association of Nurserymen

By J. R. Mayhew.

To Members of American Association of Nurserymen:

1. It is the one organization representative of the nurserymen of the United States, the one organization where the interests of all merge.

II. Under the new constitution it is an organization of comprehensive possibilities: organization, money, co-operation is provided under the Detroit constitution.

III. While the benefits emanating from the reorganized association will prove beneficial to the nursery interests as a whole, those benefits will be much greater to the membership than to the fellow on the outside. To-day as not heretofore, the troubles of the membership, for instance along legislative lines, are the Association's troubles, and ample provision has been made for the protection of every member of the Association. Unjust and discriminatory legislation in many states, coupled with the domineering spirit of "ye inspector" oftimes, has been the nurseryman's "night mare." To-day the Association's flag of protection floats over every member. To feel that the great American Association of Nurserymen is going to demand a square deal for every member, that the troubles of the individual member finds a hearty response on the part of the Association, brings a feeling of confidence, protection, and hope, the worth of which is inestimable. To feel one's self a part of a big, intelligent, capable organization inspires hope and confidence.

IV. It is worth while to be a member of the American Association of Nurserymen because of the possibilities of service to others as well as to one's self. It is builded along co-operative lines. There is more real satisfaction in serving than in being served. One man



Yates Apples where corn has been grown between the rows. Orchard of J. O. Kelly & Sons, Jeff, Alabama.

can accomplish little in working alone. Five hundred men, our present membership, can be a power when their energies are directed to a single purpose. Five hundred men unselfishly striving to better conditions in their chosen avocation will bring results. It means a greater volume of business and better profits than formerly. It means better and happier homes for the nurserymen. It means a more intelligent service. It means success.

V. It is worth while to be a member of the American Association of Nurserymen from a purely social point of view. One of five hundred of the biggest hearted, biggest brained men in the United States. If there were no other benefits, it is worth the cost to come in contact with the membership of the National Association because "I become a part of every man who comes in contact with me." No man can be satisfied with less than his best who mingles once each year with members of American Association of Nurserymen, in convention.

VI. For these and many other reasons which could be enumerated, it is desirable that every worthy nurseryman in America retain his membership. The small additional cost under the new constitution is infinitesimal, the benefits incomparable. Every member of June, 1915, remains a member by subscribing to the provisions of the new constitution. The Association needs every worthy nurseryman in the United States, and every nurseryman needs the Association. There may be some feature of the work which you do not understand. Any member of the executive committee or the Secretary, Mr. Hall, will be glad to enlighten you. There are many reasons why the 1916 convention at Milwaukee should be the greatest meeting ever held. It is most probable that it will be necessary to adopt amendments to constitution and by-laws from time to time. Whatever may be necessary to make this organization the most potent factor in the upbuilding of the nursery interests of America, with patience, with loyalty, and with courage let us approach the task.



Field of Summer Rooted Rose Cuttings. These cuttings were cut from the stock blocks in June and planted where they are. Photographed November 3rd. J. O. Kelly & Sons, Jeff, Alabama.

Hon. Jonathan Bourne, Jr., and Mrs. Carol B. Sperry, of Washington, D. C., are establishing a nursery in connection with their estate in Mobile county, Alabama. Beside propagating all trees to be planted on the estate they will grow a full line of high grade stock for the Southern trade, specializing on Satsuma orange and Paper Shell pecans. The Nursery division is in charge of R. Lloyd Scott, formerly with the Citronelle Nursery & Orchard Co. of Citronelle, Ala., and the address is Carol Plantation, Theodore, Alabama.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

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REPLACING FAILURES

Public expression of opinions at meetings and conventions and in the press regarding replacing plants that are invariably against the practice. In the words of J. R. Mayhew, "It is a vicious and asinine practice." Doubtless this expresses the opinion of most nurserymen, when they have grown stock, paying for the labor to produce it in actual cash and then sold it on a doubtful margin of profit, and overhead expenses booming large in his mind. He naturally feels sore and resentful at any suggestion that he should assume the buyers' risks and be responsible for failures over which he has absolutely no control. After the nurseryman has properly grown, packed and delivered his stock to the customer or transportation company, as the cast might be, in good condition, it would seem as if he was entitled to full compensation, and the courts, if appealed to, would no doubt so decide.

Modern business, however, is becoming more intricate and the legality of a transaction is not quite sufficient. In these days of keen competition the merchant has to give more. Business building and business holding has taken the place of the old time barter and trade, when the wits of the buyer were pitted against those of the seller.

The position taken by a large retail house better exemplifies the present attitude, namely—Should contention arise the customer is always right, because they must be satisfied and complaints are settled on that basis.

Satisfaction or your money back is no longer an advertising catch phrase, but a policy of many big merchandising establishments.

Whatever we may think about the rights and wrongs of the replacement contention, it would be well to give due consideration to the purchasers' attitude as well as our own particular business before deciding on a policy.

The purchaser buys trees, does the best he can with them according to his knowledge, and they die. He naturally feels that it was not his fault. He applies to the nurseryman to make good, often feeling that they should be delivered and planted free, and that he should be reimbursed for lost time. The nurseryman who bluntly refuses, as per published statement on his bill heads or catalogue, most likely loses a customer and gets some free advertising of doubtful value.

The nursery salesman promises to replace next year, but hopes he will not be doing that territory when planting time comes around. The diplomatic nurseryman, with an eye on the future welfare of his business, personally investigates the failure, assumes responsibility for failure if there is any or otherwise explains that the failure was due to weather or soil conditions and ends up by sharing the loss by replacing at a liberal discount.

A general and advertised policy, offering to replace failures is truly asinine, as it encourages carelessness on the part of the buyer and fraud, and is not just to the nursery business. A policy which classes living trees with pig iron is almost equally bad, but one based on the newer conception of salesmanship, in which both buyer and seller must profit or stand an equal loss, is more likely to be profitable to the nurseryman in the long run and if such a fixed policy were adopted by all the retail nurserymen it would do much to raise the standing of the business in the mind of the public and be much fairer to the individual nurseryman than the present chaotic action in dealing with the subject.

A LITTLE KNOWLEDGE IS DANGEROUS

A letter from the Office of Information U. S. D. of A. has just been received on the subject of "Weeds Harboring Insects," which contains a lot of practical common sense advice about weeds harboring insects and pests that damage the crops. There is a phase of this subject that is often overlooked and which deserves consideration. The letter advises the use of sheep to eat up the weeds and this brings to mind the botanical history of the Island of Juan Fernandez as given in a lecture by Prof. Brown at Kew Gardens. In the early days before the advent of steam and the refrigerators the navigators placed goats on the island so that it would be possible for trading vessels to get fresh meat as a change from the salt meat of the ship's stores. The calling vessels were not frequent enough and the goats multiplied so fast that the entire vegetation of the island was destroyed so that the botanical collections of the original flora made before the advent of the goats are the only ones in existence, as the entire flora of the island was destroyed.

It is not intended to suggest that there is a similar danger from sheep in this country, but if human beings may be likened to goats the parallel stands.

The attitude of mind that only those insects, plants and animals of immediate use to man are necessary to the welfare of the country, is not altogether a scientific one. Man is only a part of creation.

The writer recently heard a government lecturer state to the effect "that if all the birds were destroyed there would not be a human being on earth in twenty years

time." Whatever basis he had for the statement the point is well taken, we cannot upset the balance of nature without great risk. Our knowledge of life is a little too superficial, a little more knowledge would make us more fearful.

It may be all right to destroy all the cedars because it is a host for the apple rust, but what other destruction does it entail?

Years ago I read of the relation of cats to clover seed, which read somewhat as follows:—

The destruction of cats in a neighborhood allowed the field mice to increase and these destroyed the nests and ate the honey of the bumble bee upon which the clover depended for fertilization. This may or may not be so but it illustrates the point that all nature is interdependent and to upset its balance is likely to be disastrous in a way we do not expect.

We are just beginning to realize what the destruction of forests means to the fertility of the country and the life history of most of the bacteria, insects and insignificant plants is still a closed book.

We can destroy, quarantine all we wish to but nature has a way of punishing ignorance of her laws very severely and she actively resents man trying to impose artificial ones upon her.

We are fast eliminating all plants and insects that have apparently no economic value without very much thought as to how important they are in the plan of creation and our troubles are likely to multiply accordingly.

We become hysterical upon the advent of a San Jose scale, Chestnut Blight or a Boll Weevil and issue quarantines. May be we have brought them on ourselves and a little more knowledge would give us a little more wisdom.

DON'T NAG

The American Association of Railroad Superintendents recently adopted the following "Don'ts for Officers" which is good enough to apply to every kind of business.

"Don't nag. Many a good man has been nagged into inefficiency.

"Don't humiliate a man by advertising his shortcomings from the housetops, but quietly point them out to him. He will lose an arm for you.

"Don't treat your men as if they belonged to the kindergarten class. Chances are they are better posted than you are.

"Don't be afraid to compliment an employe for some commendable service.

"Don't forget that where some of your men are making mistakes that cost dollars, you may, by pursuing a mistaken policy, cost the company thousands.

"Don't forget that a man who is made out of the right kind of stuff will resent a brutal call-down, and you should not complain if he knocks you down.

"Don't forget that a man who will stand for a 'cussing' because of some mistake or oversight is not the kind of a man who is able to help your administration. He should be fired.

"Don't forget that while you are checking everybody else up it might be a good thing for you to make a careful inventory of yourself.

"Finally: Let each action be sweetened by a little of the milk of human kindness. It will cause you to have pleasant recollections after you have been laid on the shelf and enable you to look your old associates in the eyes."

SEQUOIAS

There are but few people interested in plants that have not heard of the Redwood trees of California, that giant race of trees that somehow escaped the general destruction of the glacial age and are the only known suvivors that connect us with prehistoric times. Some of the present living specimens are estimated to be as old as 5000 years and judging from fossil and geological evidence this type of tree once dominated the forests of the northern hemisphere but are now fast approaching extinction.

There are several species of which the botanists do not seem to be able to agree on the correct names, the two most important being *Sequois gigantea* or *Wellingtonia gigantea*, Mammoth Tree of California and *Sequoia* or *Wellingtonia sempervirens* or Redwood Tree.

According to Bailey's Encyclopedia, the *Sequoia gigantea* is the one that is hardiest and thrives best away from the ocean fogs of the Pacific Coast.

In England they make most beautiful lawn specimens. The cool moist climate of England evidently suiting them much better than the Eastern States of America. Several specimens planted in the vicinity of Philadelphia succumbed before attaining 50 years. A tree is still growing on the Meehan nurseries that is perhaps 40 years old. It is about 25 feet high and 12 inches or so in diameter at base.

It is in fair health but suffers severely each winter, the foliage becoming almost brown from the dry frosty winds in February and March, but puts on a new growth of three or four inches every summer.

The late Thomas Meehan selected the position for it to be planted near a stream, as he decided from observation that the position where the large trees he saw growing in California had originally been a swamp, subsequently becoming drained.

There is every evidence in a study of this group of trees that they did grow under very moist conditions.

The Bald Cypress of the Southern swamps, *Taxodium distichium* is a near relative.

The *Cryptomeria Japonica* is apt to be mistaken for the Sequoia by the casual observer. In fact it is a near relative, belonging to the same tribe of Coniferae and no doubt was co-existant in the forests of the Orient with the Sequoia of the Occident in the dim and distant past.

We think the National Nurseryman leaves but little room for criticism, and is a journal in every sense what it should be to the personal interest of all nurserymen.

Wishing you success.

Yours very truly,

J. E. Stoner, *Westminster Nursery.*

WHO SHOULD RECEIVE WHOLESALE TRADE LISTS?

By A. C. Hanson, Sales Manager, The Hawks Nursery Co., Wauwatosa, Wis.

WHILE it is not considered good form these days to be allied with or in sympathy with trusts or trust methods, yet, when one notes some of the deficiencies in the nursery business as conducted to-day, it would seem that at sometime or other it was a case of "big business" forming trusts or going under because of ruinous competition.

In order to show what a live Association can do, I was talking a short time ago with a very wealthy Milwaukee man, heavily interested in lumber. He said their protective methods for the retail lumber dealer were so strong that the mill owners and stock holders could not buy their lumber at wholesale for private uses, but were supposed to buy and did buy at retail from the dealer in the locality in which they resided. How many acquaintances have you able to buy at wholesale, clothing, groceries, lumber, hardware, meats, furniture and other things common to every day use? On the other hand, it is getting so now that most any one can buy nursery stock at wholesale prices. This statement is no idle pipe dream. It is founded on absolute facts. The writer knows personally of numerous instances within the past few years where both small and large quantities of stock were offered to the consumer and purchased by him at prices as low or lower than standard wholesale prices. Many retail nurserymen with whom I have talked will bear me out in this assertion.

The question is gentlemen, where is this going to lead to and what the ultimate result? It is a vital issue; one of the most important which retail nurserymen are facing today. The time has already passed when mere discussion will suffice. The time is here and has been for sometime when radical and drastic action should be taken demanding that proper recognition and protection be given the legitimate nursery dealer.

This sending out Wholesale trade lists promiscuously is a cancer in the side of nurserymen that must be removed. Every time a consumer whether he is buying a large or small quantity is able to buy at wholesale, he and his friends are forever lost to the retail nurseryman. It is a known fact that retail nurserymen afford the greatest outlet for the stock grown by the wholesaler and he realizing this, should work hand in hand with the retailer and give him all the protection he can, instead of hurting him by sales made in the manner above described.

Any dealer in your town handling a staple article, would soon quit a manufacturer or wholesaler, who after stocking him up with a line of goods, was to circularize people in this merchant's neighborhood, offering the same stock 30 to 40 per cent. lower in price. The present status of the wholesale nurseryman and the retail nurseryman is almost identical. It is not good business; neither is it fair. To further illustrate the point, I have talked with at least three landscape architects this past summer. In talking prices, I was very frankly told that they received a price for their landscape design; a fee for superintending the planting; that they sent out lists to different wholesale nurserymen and got bids. The man who bid the lowest filled the order; they checked out the stock and Mr. Purchaser paid the bill direct to the wholesaler and not through the landscape architect. What does this mean? It means, the man spending $100.00 or $500.00 or more on shrubs and trees is getting the lowest possible wholesale rate. Again I ask you, is it fair and does anyone in the business think it is fair that landscape architects should be given wholesale prices when used in a way that cannot help but be disastrous to the retail nurseryman?

Is there any reason why Municipalities should buy their trees and shrubs at wholesale prices? Is it not a notorious fact that cities as a rule pay standard prices on other things, often paying more than the market price? Is it fair for wholesale nurserymen to sell direct to gardeners and care-takers of private estates? Is it fair for wholesale nurserymen to sell stock to Department stores; said department stores offering these goods at cost as a bait to come in and buy other things?

In cities like Chicago and Milwaukee and also cities much smaller, we find practically every small florist liberally supplied with special discount sheets and surplus lists, who are selling first class shrubs at 12 and 15 cents, fruit trees from 20 to 25 cents. What show has the retailer against these methods?

Do we find wholesale price-lists and confidentail discount sheets of different lines of big business going through the mails in 1 cent letters? Yet, in the spring from March to May 1st, the mails are flooded by nurserymen's surplus and discount sheets in open envelopes and 1 cent postage.

Wisconsin nurserymen have at least begun to see the light and have taken a most decided stand as will be seen by the following open letter and resolution, which was signed and agreed to by practically 95 per cent. of the Wisconsin nurserymen. Furthermore, each of these nurserymen mailed copies of this letter and resolution to all of the wholesale growers with whom they have been doing business, making it plain that wholesale nurserymen who are known to be careful about mailing their wholesale price-lists, would in the future be given the preference in placing of all orders.

I would like to have this discussed through the columns of this paper and would be glad to know what others think about the same question.

To Whom It May Concern:—

At the June 1915 meeting of the American Nurserymens' Retail Protective Association, Detroit, Mich., a resolution was adopted in accordance with Section 5 of our By-laws; to-wit:

"That all members, so far as it be within their power, be requested to forward to the Secretary for publication a list of persons in their respective states who are bona-fide nurserymen and as such entitled to wholesale trade lists?"

It appears that too much activity has been displayed on the part of wholesale nurserymen in sending wholesale lists to private planters, in some instances, quoting a lower priee than to the legitimate dealer. No one with a sense of fair play can sanetion acts of this kind inasmuch as the dealer must eontract a long time in advance for his stock; then be made to suffer a loss of business and prestige by the wholesale dealer who after disposing of as much stock as he can to the legitimate dealer, works off the balanee at ruinous prices to many of the people who the dealer might rightfully consider as legitimate customers.

Any party not aetually engaged in the sale of nursery stoek should under no circumstances be favored with a wholesale nursery price-list.

It is earnestly requested that every retail nurseryman having an interest in this movement will sign this communieation and return to this offiee, pledging himself in purehasing his nursery stock to give the preference in buying from such nurserymen known to be selling to dealers and nurserymen only and not wholesaling retail buyers.

It is further requested that each of you send typewritten copies of this communication to every wholesale nurseryman with whom you are accustomed to doing buiness.

It is further urged that each one notify the Secretary of the Protective Association, Guy A. Bryant, Princeton, Ill., as well as the writer where you know of any nurseryman sending out his wholesale list to parties not entitled to the same.

T. J. Ferguson, *Vice-President for Wisconsin,*
American Association of Nurserymen.

Signed .....

Obituary.

MRS. MARY E. STEPHENS.

Mrs. Mary E. Stephens, wife of E. F. Stephens, Nampa, Idaho, died Deeember 8th. Mrs. Stephens suffered for many years from an incurable affliction, after being confined to bed for years at a time, yet in spite of it her life was a wonderful example of courage and energy. She will be long truly missed and mourned by her husband and many friends.

Inspection Laws.

The Lonsdale Nursery,
Lonsdale, Minnesota.

Editor of "The National Nurseryman,"

Some time ago I read sharp criticism of a certain federal judge for using the phrase "These United States" etc., instead of "This United States," in a singular number. Being of a judicial frame of mind, I eame to the conclusion that he was probably right and here I wish to state at least one occasion where this phrase correctly applies.

The Federal constitution provides that the powers to regulate commerce between the states are reserved to Congress, yet there is no provision made that all state laws should be passed upon by Congress, as to whether they attempt or virtually do regulate interstate commeree. This function is erroneously left to the courts to pass upon.

Undoubtedly every state has inspeteion laws for the inspection of nursery stock, some states honor or recognize the inspection certificates of other states, and some do not, and provide for re-inspection upon arrival of nursery stock into the state; again other states require the registration of a certificate for a prohibitive fee, which is either intended to prohibit shipments or to raise a revenue by unduly taxing the shipper of the Sister States.

One sample is the State of Virginia, which charges a fee of $20.00 for registering the certificate of inspection issued in any other state. Every one with common sense knows that such a fee is excessive and virtually prohibits small shippers to ship into said state, and for that reason we have a right to say "These United States." because each and every state has an opportunity to act as an independent nation until its acts are reversed by the Federal Courts, at the expense of the oppressed litigants.

The only remedy we now have, until my suggestion is adopted, is to awaken Congress to enact Federal laws for the inspection of nurseries for interstate commeree, reserving to the states the rights of Inspection for interstate commeree alone.

Besides political reasons, there are also natural reasons for that; injurious insects and plant diseases do not exist according to political divisions of the country, but according to climatic conditions, and therefore a Uniform Federal Law is the proper remedy.

Yours truly,

John P. Vikla.

The work of the Root Knot Committee of which E. A. Smith is chairman, is a dormant one, so to speak, until spring. Experiments are being undertaken in several different states, the result of these will be forthcoming when completed and a report made to the National Association.

THE INFLUENCE OF THE WAR ON THE DEMAND FOR NURSERY STOCK.

Can a Better Demand be Expected After the Conflict is Over?

By Lloyd C. Stark, Vice-President Stark Bros. Nurseries & Orchards Company, Louisiana, Mo.

THE discussion of the first of these subjects, "The Influence of the War on the Demand for Nursery Stock" can be handled with some satisfaction, but the second question, "Can a Better Demand be Expected After the Conflict is Over" involves so many "ifs" and "guesses" that it seems to me that our good friend, Needham, must have had some particular grudge against me when he asked me to present the matter to you gentlemen. In fact, as one of our good friends has said, I feel like the good old colored brother who was asked to change a $20.00 bill. "No, boss" said he, "I ain't got de change, but I thanks you foah de compliment, jest de same."

As a matter of fact, one man's guess is as good as another when it comes to dealing in futures following this unprecedented world war, for as Horace Greely once wrote, "It is the unexpected that usually happens."

At first glance, guessing as to the future seems easy—nobody can contradict you; one opinion is just as good as another. To that extent my subject is easy, but so handled, it would be worth just as much to the Western Association of Nurserymen as the paper upon which it was written.

The more I investigated the subject the more I realized the difficulty of presenting you with information of real value, and that is what I have tried to do—I have tried to make an actual investigation. I have written men in all sections of the country—in the nursery trade, financial circles, and the officials in the several Departments at Washington. Our good friend, Houston, Secretary of Agriculture, has been kind enough to offer some very valuable suggestions, as have many nurserymen from all sections of the country.

In spite of the fact that I have endeavored to study the war from an economical standpoint, from its inception, I felt absolutely incapable of coming before you with my own poor opinions and guesses. I have taken refuge in the old axiom that—

"In a multitude of counsel there is much wisdom."

Such information as I will give you hereafter will simply be a resume or digest of the opinions of many men; men whom I believe to be in a position to give us intelligent "guesses."

But to return once more to "The Influence of the War on the Demand for Nursery Stock"—. This part of the subject surely requires very little discussion.

The consensus of opinion from all sections of the country is, that the war has adversely affected the nursery business in about the same ratio as the general business throughout the country. In the east, and west of the Rockies, the fruit tree business has been hurt worse than the ornamental trade. This is particularly true of the east. In fact, the ornamental business, everything considered, has been unusually active; the great danger that now confronts ornamental nurserymen is that this increased demand for ornamental stock will, in another year or two, encourage excessive propagation that will glut the market with ornamentals and we will have the pleasure of seeing ourselves handling ornamentals at less than cost of production, just as we have witnessed in the past few years the over-production of apple trees.

In the central-west, through the corn and wheat belts, the demand for fruit trees in proportion has been better than in the east. Perhaps I will not be far wrong when I state that it is probably 20 per cent below normal.

The statements I have just made, of course, apply to the entire period since the beginning of the war.

In the last few weeks, or perhaps more truly the last two months, conditions have taken a radical change for the better, and now most every business in every section is beginning or is already radiating with optimism. The press of the U. S. a few months ago was predicting prosperity; now we hear, see, and feel that prosperity has arrived—it is with us now—times are better, there is no one who will attempt to gainsay that fact. The nursery business has greatly improved and the outlook for spring is much better.

The reason for this return of prosperity some people will tell you is due to the war—war munition orders, war prices for grain crops, the big increase in our trade balance with Europe, the big increase in our gold reserve, (European gold is pouring into American banks) —our trade balance with Europe is just sixteen hundred million dollars better than it was before the war; that is, we were practically eight hundred million dollars in debt to Europe before the war, where now Europe is something over eight hundred million dollars debtor to us. The figures at this time are probably considerably in excess of the amounts mentioned.

Those authorities who assign these reasons only, fail to reach the basic cause which my investigation shows is, (and this applies particularly to the nursery business) the enormous crops and the exceptionally high prices prevailing for the season just closed. The nursery business is largely dependent upon the purchasing power of the farmer. When he is in a buying mood nursery stock moves—when he is feeling pessimistic our nursery sales drop.

In 1913 and 1914 the farmer passed through two withering drouths; the South suffered several losses in cotton and the nurserymen felt the results, so did the large orchard companies, many of them ceased to exist and the others have had mighty hard sledding, and the big commercial plantings dropped off rapidly.

This year we have had good crops and the country banks are full of money—farmers are again beginning to feel good and in the last few weeks they have begun

to buy trees in somewhat the old time manner. If nothing unforeseen occurs in the meantime, we can expect a much better spring than last year.

But now to get right down to brass tacks: There has been one other reason which has been the chief reason for the depression in the nursery business. It is our same old thread-bare friend—"over-production". The big commercial plantings prior to 1910 and '11 made too many nurserymen plunge into deep water. As a body, we nurserymen have trusted too much to blind providence and depended too little on our cool, deliberate judgment. Too many nurserymen are born optimists. It seems that we will not permit ourselves to look back over the past; we try to forget the big bon fires and remember only the palmy days.

My recent somewhat extensive correspondence on the very subject I am discussing now bears out this fact. 75 per cent. of the nurserymen to whom I wrote, especially those who were unable to give the matter much of their valuable time, wrote that they did not know just why, but they somehow felt that after the close of the war we should experience a great wave of prosperity in the nursery business. We all hope this is true, and I, myself, after considering all the matter before me, believe it is partly true, but only partly so.

About a year ago, while conferring with the vice-president of one of the largest and most conservative financial institutions in the country, we discussed this very topic. His judgment, at that time, was that business would gradually improve and that the country would become unusually prosperous. That this wave of prosperity would last throughout the war and for possibly a year or so after the war—while Europe is passing through her first period of reconstruction. No country, not even the United States with its great natural resources, said he, can hope to be entirely free from the ill-effects following the absolute destruction of such a large portion of the wealth of the world. His judgment was that after our first burst of prosperity we would pass through several years of moderate depression, after which we might expect the resumption of normal conditions. His forecast so far as gradual improvements and more prosperous times are concerned has been fulfilled. I believe his prediction as to increased prosperity in the immediate future will also be fulfilled. After the war is over I think there will be that short period of prosperity and a several years' slump, after which America should emerge stronger than ever, provided, in the meantime, we have taken out enough life insurance in the way of adequate national defenees to protect our immense wealth. We are today the wealthiest nation in the world; our national wealth is estimated at one hundred and three billion dollars. England is next, with about eighty billion dollars. If we are not careful some husky, male fisty veteran of the European war will be envious of our money bags and if we are caught with our guards down we may live to regret our failure to remember the old adage, "a stitch in time saves nine." But this is getting too far from our subject.

So far these observations are none too pleasing. I have not meant to be pessimistic but I do think the most dangerous thing that now confronts the nursery fraternity is undue optimism. What we need right now is conservative propagation, coupled with up-to-date methods of doing business, undaunted determination to succeed, and a strong, healthy, conservative confidence in the future of our country and the nursery profession.

If we will hold our plantings within reasonable bounds and realize that the boom plantings are a thing of the past, possibly never to return again, I believe we will all do a profitable business. I think we should be ready for at least a temporary slump following the close of the war, after that slump I think the nation will soon recover, but all the prosperity in the world is not going to offset blind, unwise, top-heavy propagation of trees in either the fruit or ornamental line. The man today with a blind belief in the prosperity to come, who plunges into the propagation of more stock than his selling machinery warrants, is the man who is going to make hard times for the nursery fraternity—he is a greater enemy to himself and more of a menace to his profession than all the wars and all the destruction in Europe.

If we grow for the normal demand, husband our resources, be ready for the rainy days, are conservative in our propagation, progressive in our sales methods, the demand for nursery stock during the war and the demand for nursery stock after the war will hold no unusual dangers for the nurserymen.

HOW TO CONTROL FIRE BLIGHT

Reports of fruit growers indicate that fire blight in both apples and pears is a serious epidemic in the fruit-growing sections of the middle west. The disease has not as yet been destructive in New York this year, because of the early dry season which prevented the germ from oozing from the hold-over cankers. Cold, cloudy weather at the time of pear blossoming suppressed the activities of the various insects that carry the blight germ to the blossoms. The dry weather induced a hardening of the new growth almost as soon as formed, and in such hardened tissue the blight germ makes very slow progress. The recent heavy rains, however, are likely to bring about rapid growth in well tilled orchards and there is still danger of much damage from the blight.

A representative of the New York state college of agriculture at Cornell recently visited many orchards in the state and reports only a small amount of blight. He therefore urges the fruit growers of the state to make a united and persistent effort to eradicate blight from their orchards while it is comparatively a simple proposition.

Method of Control

The orchards should be inspected twice weekly for traces of blight. Any blighted twigs should be cut off at once, making the cut at least six inches below any signs of the diseased tissue. The pruned stub should be disinfected with corrosive sublimate solution made by dissolving one antiseptic tablet, obtainable at any drug store, in a pint of water. The solution should be carried in a glass container and the wounds swabbed liberally with it.

The bi-weekly inspections should be started at once and continued until the wood becomes hard again. It would also be a great advantage to sow the cover crop in pear and young apple orchards now, as this crop will help to check the growth and at the same time insure that the trees go into winter in good condition.

From New York State College of Agriculture at Cornell.

"TRANSPORTATION"

By Charles Sizemore, Chairman Transportation Committee, American Association of Nurserymen, Louisiana, Missouri.

Read Before the Meeting of the Western Association of Nurserymen, Kansas City, Mo.

IN going down the street one day recently, I was almost deluged by a sprinkling wagon. After I had, in a measure, recovered from the temper into which the driver's carelessness had thrown me, it suddenly dawned on me that this was one kind of business that prospered from the little leaks. Upon taking another look at the sprinkling wagon, I discovered that out of the very small holes in the sprinkling attachment there came enough water to make necessary three large pipes connecting this sprinkling attachment with the tank.

This incident served to emphasize in my mind, the importance of looking out for the little leaks in the average man's business—particularly in the traffic end of it. Many shippers of freight (and receivers as well) give practically no thought to this part of their business simply because it has been their practice to pass the charges along to the ultimate consumer without regard to the question as to whether these charges were right or wrong. Such a practice, however, is becoming more and more difficult of successful execution simply because of the fact that the ultimate consumer in an ever-increasing number is now giving heed, not only to the cost of what he buys, but also to the cost of having his purchase put into his possession.

You gentlemen are all, of course, familiar with the different provisions of the classification on nursery stock, and you take advantage of the fact that the L. C. L. rates are less when the stock is put in barrels and boxes than when it is put in crates, and that it is less when put in crates than when put in bundles. You know the provisions of the Classification with reference to guaranteeing of charges, as well as with those concerning demurrage, switching, storage, etc. You know when to order a 36-foot car, and what happens if a car larger than you ordered is supplied by the carrier because of its inability to supply you what you have asked for, so that it would be folly for me in this kind of a talk to attempt to tell you anything along this particular line.

I am sure, however, you will agree that too much emphasis cannot be put upon the subject of proper packing, on proper marking and upon care in the routing of your freight. I appreciate the fact that to use unduly heavy lumber in the making of boxes and crates or the use of more wet moss than is absolutely necessary, makes an increase in the weight of your shipments, thus bringing about increased freight charges; but the disappointment of one customer through receipt by him of dried out or otherwise damaged stock will frequently cause you to lose more than you would gain through skimping in the packing of a dozen shipments.

You, of course, appreciate the fact that if you mark with tags they must be put on to some part of the box, bundle or crate so that they will not be easily torn off or so defaced that they cannot be read, and you also appreciate the fact, if these tags are put upon bundles, ink that will not run should, by all means, be used for the addresses.

There is one thing that some shippers do that I have found from an experience of a good many years to be less than useless, and that is the indiscriminate tracing of freight shipments. I know of one shipper who traces every carload he forwards, and he also traces a large percentage of his less-than carload shipments, and he tries to force the railways to give these tracers preferred attention by having printed across the top of them, in large red letters, this statement: "We have the tonnage to give for service. Handling our freight shipments and this tracer as well with the utmost dispatch is the service we demand in exchange for the tonnage."

Now, suppose every shipper in the country should attempt to follow this shipper's example. The railways would centainly be put under a burden they should not be called upon to bear, and the very purpose for which a tracer should be started, would be defeated; for a tracer, as you will agree, is only intended as a method of finding and hurrying along a shipment that is not making as good time as it should, or that has become lost; and if all shippers adopted the plan referred to, no shipments would be expedited and no tracers would be of any service whatever.

Another thing to be considered in connection with this particular shipper's method of tracing his shipments is that it works a hardship upon every other shipper of freight using the lines of railway used by this particular man, for his threat, doubtless in many instances, brings him preferred attention and his shipments are not perishable.

There is just one thing that I would urge upon you, and that is—never file an unjust claim, and when you have one that is right, be sure that every necessary document accompanies it, and then insist on its payment. I am sure every one of you has been in business long enough to know that fair dealing and a disposition to co-operate and to arbitrate differences pays better than does a disposition to be contrary and to insist upon your rights to the last ounce, and if what I have said shall have caused but one of you gentlemen to feel that you will, in future, be willing to meet the carriers half way, to do what you can to enable them to earn a fair profit, to only order cars when you are ready to load them and to promptly unload cars when they are set into your place of business, I shall feel amply repaid for having presented these facts to you.



Business Movements.

ANNOUNCEMENT

We beg to introduce ourselves to the Nursery Trade under the firm name of C. M. Griffing & Co.

C. M. Griffing has for over twenty years been so closely identified with the nursery, fruit and nut growing interests of the South that little personal introduction is needed.

For personal and business reasons he has segregated his principal interests from the firm of Griffing Brothers, Inc., purchasing from that firm the non-citrus nursery stock, nursery property and equipment at Jacksonville and Macclenny, Florida, and with new business associates will continue growing and selling a complete assortment of non-citrus trees and plants; including nuts, fruits, vines, ornamental shrubbery, shade trees, palms, roses and flowering shrubs adapted to the South Atlantic and Gulf States.

Relieved from the cares and responsibilities contingent to the position of secretary and treasurer for a large firm with such varied and scattered interests like that of Griffing Brothers, Mr. Griffing feels that with our interests under his personal care and management that we can better serve our patrons than could a larger firm where personal touch, care and supervision is impossible.

With a large and complete stock of as fine, healthy and well grown trees as was ever produced, and with the opportunity of closer personal attention to the management and detail of handling the business and orders, we can assure our patrons of the best possible nursery service.

We solicit your patronage, for which we thank you in advance.

C. M. Griffing & Co.

October 15, 1915.

To Our Friends and Patrons,
Greeting:—

This will serve to announce to the nursery trade and tree purchasing public of Florida and tributary trade states the sale of our non-citrus nursery stock, nursery property and equipment at Jacksonville and Macclenny, Florida, to C. M. Griffing.

Mr. Griffing has for the past nineteen years filled the position of secretary and treasurer of Griffing Brothers, Inc., formerly the Griffing Brothers Company, in a most satisfactory manner. Aside from the duties as secretary and treasurer he has had the general supervision of the sales work and accounting department for the corporation at all branches in all its varied and extensive undertakings, together with the direct management of operating our Jacksonville and Macclenny, Florida Nurseries.

We take pleasure in extending to Mr. Griffing and his new associates in the new firm of C. M. Griffing & Co., our good will, and bespeak the same from the many friends and patrons of our Jacksonville and Macclenny, Florida Nurseries.

With relief from the varied cares of the larger firm, with a complete and exceptionally fine stock of non-citrus trees and plants and a modern and efficient equipment, we believe that by Mr. Griffing giving his concentrated efforts to the management and guidance of the smaller interests and business, that the new firm of C. M. Griffing & Co., will be able to serve their patrons in a more satisfactory manner and give them greater values than we have been able to in the past.

Griffing Brothers, Inc.

October 15, 1915.

KEYSTONE STATE NURSERIES

Keystone State Nurseries have recently located at Pittsburgh, Pa. They are making preparations to grow a general line of all kinds of fruit, ornamental and shade trees, shrubs, roses, vines and other hardy plants.

They will be pleased to hear from the many nurserymen that they have become acquainted with and hope that their business relations in the future will be as pleasant as in the past.

THE NEXT CONVENTION

Just a reminder regarding the forty-first annual convention of the American Association of Nurserymen, to be held in Milwaukee, Wis., June 28-30, next. Hotel Wisconsin has been chosen as convention headquarters. Mr. T. J. Ferguson, of Wauwautosa, Wis., is the local representative of the association in the matter of arrangements, entertainment, etc. It is the hope of the executive committee that every reputable nurseryman in the country shall catch the spirit of co-operation and seek membership in the association. Secretary John Hall, 204 Granite Building, Rochester, N. Y., will promptly respond to all questions asked of him.

J. C. Bauer, the strawberry plant man, of Judsonia, Ark., whose ad. appears in this issue, has a novel plan for disposing of Ever-bearing strawberry plants. The plants are lifted before frost while full of fruit and placed in pots, then sold to retail trade during fall and winter. He tried this out this season and is highly elated with the success he has had, having sold his entire stock of plants treated in this manner for 50 cents to $1.00 each.

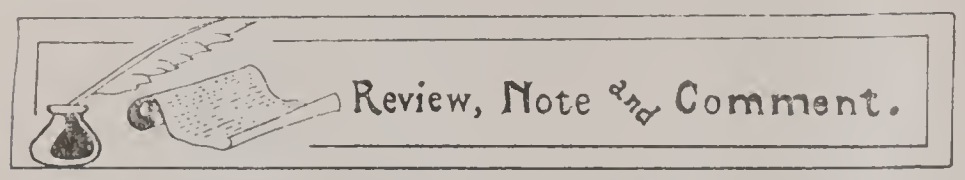


Fruit and Plant Notes.

TIME TO TOP GRAFT FRUIT TREES

The general impression that this can be done only in the spring is not a fact. I have given this matter a thorough trial for the past three years and I know it can be successfully done in any favorable weather through the winter, or any time after the leaf falls, from November until foliage starts in the spring. It must be done thoroughly and well waxed, the ends of the scions covered as well as the union. I find when all conditions are right it is just as successful at any time through the winter, as in the spring.

Charles Black, *Hightstown, N. J.*



The Biltmore Nursery, Biltmore, N. C., is gradually liquidating their large stock of ornamentals. Since the death of the founder, the trustees have thought best to simplify the affairs of the estate and gradually close the nursery out. Of course, there is an immense stock and they have many unbroken lines, so that it will be some years before the nursery is entirely discontinued, and they will continue to solicit the commercial support of friends and patrons but propagating has been stopped. The trade will be sorry to hear of this as few concerns carried such a complete line in ornamentals, many of them being kinds that were not generally grown commercially and so rather difficult to procure from any other source.

McHutchison and Company, Import House, 17 Murray street, New York, advise us there is no difficulty in getting shipments from Holland, France, Britain and other countries. The exporters in these countries have to prove the origin before they can get their exporter's permits. There will be some difficulty in importing from Belgium as the Belgian exporter has to get a permit from the German authorities in Brussels and also a British permit and can prove through affidavits that the goods to be exported from Belgium are the productions of that country and must either deposit the value of the shipment in London or make some arrangement whereby the proceeds of the sale will remain in charge of the British authorities until the war ends or until they release them.

Shipments from Germany or Austria are practically embargoed, except those goods that are American owned or were ordered prior to March 15, 1915.

GRAY'S NURSERIES

Salem, Ind., November 16th, 1915.

National Nurseryman:—

Dear Sirs:—

The season here has been the best for growing nursery stock we have had for many years. We have just finished visiting all of the nurseries in this state and find the growth on all stock exceptionally strong, especially peach. Plants also have made a splendid growth and well rooted.

On our 100 acre plant farm we notice it takes twice as many boxes as last season, showing the growth is abnormal, weather has been ideal and most stock for spring trade is either in storage or trenched. We have trenched most of ours this season.

ALVIA G. GRAY,
Proprietor Gray's Nurseries.

Charles Sizemore, Louisiana, Mo., is under the care of his physicians, Mayo Bros., Rochester, Minn., with a bad foot. It is seriously thought an amputation will be necessary but for the time being has been postponed and Mr. Sizemore expects to be at his desk early in the New Year.

The State Horticultural Association of Pennsylvania will hold its 57th annual meeting and fruit show at the Hotel Berkshire, Reading, Penna., January 18th, 19th and 20th.

Secretary J. A. Runk had to give up the active duties of office and by unanimous vote, Prof. F. N. Fagan, State College, Penna., was elected to take up the work of the Secretary and complete the unexpired term.

AMERICAN ASSOCIATION OF NURSERYMEN

President—E. S. Welch, Shenandoah, Iowa.
Vice-President—John Watson, Newark, N. Y.
Treasurer—Peter Youngers, Geneva, Neb.
Secretary—John Hall, Rochester, N. Y.
Executive Committee—President, E. S. Welch, Shenandoah, Iowa, Chairman; J. B. Pilkington, Portland, Oregon, one year; Lloyd C. Stark, Louisiana, Mo., one year; J. H. Dayton, Painesville, Ohio, two years; H. B. Chase, Chase, Ala., two years; J. R. Mayhew, Waxahackie, Texas, three years; Theo. Smith, Geneva, New York, three years; Vice-President, John Watson, Newark, N. Y., ex-officio.
Attorney for Association—Curtis Nye Smith, Boston, Mass.

Chairmen of Committees

Transportation—Chas. M. Sizemore, Louisiana, Mo.
Tariff—Irving Rouse, Rochester, N. Y.
Legislation East of Mississippi River—Wm. Pitkin, Rochester, N. Y.
Legislation West of Mississippi River—Peter Youngers, Geneva, Neb.
Co-Operation with Entomologists—L. A. Berckmans, Augusta, Ga.
Program—L. C. Stark, Louisiana, Mo.
Exhibits—Albert F. Meehan, Dresher, Pa.
Arrangements and Entertainment—T. J. Ferguson, Wauwatosa, Wis.
Publicity—J. R. Mayhew, Waxahackie, Texas; L. C. Stark, Louisiana, Mo.
Editing Report—John Hall, Secretary, Rochester, N. Y.
Root Knot—E. A. Smith, Lake City, Minn.
Membership—Will B. Munson, Chairman, Denison, Texas.
Finance—J. H. Dayton, Painesville, Ohio; T. J. Smith, Geneva, N. Y.; John Watson, Newark, N. Y.

STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irvine Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H. W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

Canadian Association of Nurserymen—President, E. D. Smith, Winona; secretary, C. C. R. Morden, Niagara Falls, Ont.

Connecticut Nurseryman's Association—President, Walter E. Campbell, New Haven, Conn.; secretary, F. L. Thomas, Manchester, Conn.

Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Litooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell, Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, E. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, E. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York. Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, W. N. Scarff, New Carlisle, O.; secretary, W. B. Cole, Painesville, O.

Oregon—Washington Association of Nurserymen—President, C. F. Breilhaup, Richland, Wash.; secretary, C. A. Tonneson Tacoma, Wash

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Andorra, Philadelphia Secretary, Henry T. Moon, Morrisville, Penna.

Southern Nurserymen's Association—President, Milton Moss, Huntsville, Ala.; secretary-treasurer, A. I. Smith, Knoxville Tenn. Next meeting, Hendersonville, N. C.

Tennessee Nurserymen's Association—President, J. H. Austin, Antioch, Tenn. Secretary-Treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Deninson, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas.

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

Lloyd C. Stark, vice president of the Stark Bros. Nurseries and Orchards Co., Louisiana, Mo., has been elected President of the Western Association of Nurserymen.

John Watson, Nurseryman, Newark, N. Y., has taken the agency in this country for F. Delaunay, Angers, France, for fruit tree seedlings and the usual line of young French stocks for lining out.

The wholesale catalogue of general nursery stock and roses of E. Turbat & Co., Orleans, France, has just come to hand. It is a very complete and comprehensive one with long lists of new roses, new Hydrangeas, Lilacs, etc., and speaks well for their ability to supply their customers as usual in spite of the stress of war.

The E. I. du Pont de Nemouts & Company, Wilmington, Delaware, publish a paper under the title of "Vertical Farming." It is devoted to the encouragement of the use of dynamite in farm operation. There is little doubt that dynamite is a great labor saver and it is worth the while of nurserymen to investigate its use, especially in the breaking up and clearing of new ground.

WANTED

WANTED:
5,000 Honey Locust
12 to 18 in. Seedlings
Quote Prices
Thomas Meehan & Sons
Dresher, Penna.

POSITION WANTED
By experienced lady stenographer. Thoroughly familiar with all modern office devices, accurate and swift with Dictaphone and mimeograph and adding machine. 3 years experience in two leading nurseries.
"E. J., care of National Nurseryman.

SITUATION WANTED—As foreman on Nursery. Life experience in growing high class stock in fruits and ornamentals. Thorough knowledge of all forms of propagation and landscape uses of ornamentals. References.
G. M., Care of Nurseryman.

WANTED—Man familiar with Ornamental Trees and Shrubs and with a knowledge of their qualifications for Landscape work. Should understand Landscape Gardening, be qualified to plant Nursery stock, and also able to help in the sales department of the Nursery business.
Salary moderate, opportunity for advancement. Only honest, temperate men need apply. Kindly state experience had, also giving age and references.
STEPHEN HOYT'S SONS, CO.
New Canaan - - - - Conn.

Wanted! Nursery Superintendent
We want a good, live Nurseryman capable of handling men and taking charge of fruit and ornamental nursery. Married man preferred. Good salary and opportunity for becoming financially interested will be given to a live wire who can deliver the goods. Position must be filled before March first.
ADDRESS BOX P. The National Nurseryman.

Practical Nurseryman Wanted
To take charge of our new Woodmont Nursery. Permanent position with chance for advancement to the right party.
The Elm City Nursery Co.
WOODMONT NURSERIES, Inc.,
New Haven, Conn.
In writing state experience and references.

FOR SALE—Whole or part interest in Established Nursery within easy hauling distance of Chicago's finest suburbs. Ample acreage, up-to-date buildings, large variety developed immediate effect stock, exceptional opportunity for party with moderate capital. Address
"INTEREST," Care of National Nurseryman.

Advertising + Stock = New Sales
Just as sure as
1 + 1 = 2
So start your
SPRING ADVERTISING CAMPAIGN
NOW

LONG ON
McDonald, the coming berry, Dallas, Haupt and other berry plants. Blackberry root cuttings, Magnolia and Ischia fig trees at very low prices. Fig and grape cuttings, Japanese persimmon trees, Apple and pear scions. Cal. Privet cuttings.
FITZGERALD'S NURSERY,
Stephenville - - - Texas

30,000 One Year Peach
To offer Fall 1915 in good assortment, these are extra fine trees, 7-16 and up, mostly in heavier grades, nice straight and smooth, good height and well branched. Special prices in carload lots.
EASTERLY NURSERY CO.
CLEVELAND, TENN.

THE VERY BEST

Apple Trees, One and Two Years
Cherry Peach Kieffer Pear
Grapes
Rhubarb, True Myatt's Linnaeus, Divided Roots

SHADE AND ORNAMENTAL TREES

American Elm
American Sycamore
Cornus Florida
Kentucky Coffee
Silver Maple
Cut-leaved Maple
Carolina Poplar
Bechtel's Flg. Crab 4 to 5 ft., and 5 to 6 ft.
Catalpa Bungei, straight stems
Catalpa Speciosa
Honey Locust, Thornless and Common
Tulip Tree
Volga Poplar
Texas Umbrella

ORNAMENTAL SHRUBS

Althea
Calycanthus
Cydonia Japonica
Cornus Siberica
Deutzia
Eleagnus
Forsythia
Upright Honeysuckle
Berberry, Purple-leaved and Thunbergii
Lilac, Common and Named Sorts
Philadelphus
Spirea
Viburnum
Weigelia
Hydrangea Arborescens Grandiflora
Hydrangea Paniculata
The Hydrangea we offer are strong, vigorous plants. An unusually good lot

PRIVET

California and Amoor River, hardy
California, 1 year, 12 to 18 in. and 18 to 24 in.
2 years, transplanted, 2 to 3 ft. and 3 ft. and over
Amoor River, 1 year, 12 to 18 in. and 18 to 24 in.
2 years, transplanted, 2 to 3 ft. and 3 ft. and over.

ROSES

Excelsa, a fine crimson rambler
Dorothy Perkins White Dorothy Perkins

FOREST TREE SEEDLINGS
APPLE SEEDLINGS
APPLE GRAFTS

J. H. SKINNER & CO.

TOPEKA - - - - KANSAS

APPLE TREES

At

ROCK BOTTOM

Fine Growth
ree From Disease
ull List of Varieties

Also our usual supply of

CHERRY, PEACH, PLUM and PEAR TREES

Apple Seedlings

Ornamental Shrubs

Small Fruit Vines

Strawberries, Etc.

L. R. TAYLOR & SONS

Topeka, - - Kansas.

P. OUWERKERK,

No. 216 Jane St., Weehawken Heights, Hoboken, N. J.

Rhododendrons, Clematis, H. P. Roses, Hardy Azaleas, Paeonies, Magnolias, Box Trees, Fancy Conifers, Hydrangeas and Shrubs, our specialties at our HOLLAND NURSERIES. Some of the goods on hand here during the packing season.

YOUNGERS & CO

Geneva, Nebraska.

Apple Trees Peach Trees

Compass Cherry

Shade Trees

Ash, Catalpa, Elm, Maple, Lombardy Poplar, Linden, Sycamore, Black Walnut.

Ornamental Shrubs

Flowering Almond, Prunis Tribola, Snowball, Siberian Dogwood, Spirea Van Houti, Spirea Arguta.

Seedlings

Apple, Cherry, Pear, Plum, Maple, Box Elder, Catalpa, Osage. Write for Prices.



A Plea for Business

Yours and mine

Buy Hathaway

Berry Plants

See Wick Hathaway's Berry Plants advertisement on page 32 this issue, You probably never handled better plants than that advertisement represents.

A Plea For Business
Yours and Mine. — **Try Hathaway First**

See Wick Hathaway's Berry Plant advertisement, page 32 this issue.

ROSES

First Aid to Buyers
Spring 1916 LIST.

THE LEEDLE FLORAL COMPANY
SPRINGFIELD·OHIO·



40 ACRES solid to Superb, Progressive, Americus and other best everbearers. Get acquainted offer for testing. Send us 10c for mailing expense, and we will send you 6 high quality everbearing plants (worth $1) and guarantee them to fruit all summer and fall, or money refunded. Catalogue with history FREE if you write today.

THE GARDNER NURSERY CO
Box 162 OSAGE, IOWA

TREE SEEDS

Large assortment of Tree, Shrub and Fruit Seeds for ornamental and forestry purposes
Send for catalogue. **CONYERS B. FLEU, Jr.**
Germantown, Philadelphia, Pa.



Unusual and rare stock in great variety; hardy Bamboos, Palms, Crapemyrtles, Fruit and Economic trees and plants, etc., etc., from all over the world.
New additions constantly being tested. Ask for complete descriptive catalog, and wholesale rates. **34th year.**

REASONER BROS.,
ONECO - - FLORIDA.

PRINTING

Catalogues
Stationery
Business Forms

The Robinson Publishing Co.
Batboro, Pa.

Specialists in Nursery Printing
Ask for Prices. We are the printers of this Magazine

300,000 St. Regis everbearing Red Raspberry plants for sale.

PAUL L. HEGGAN
Waterford Works - - New Jersey

NEW PEACH—WILMA

Originated in the famous peach belt at Catawba Island, Ohio. Selection from several thousand Elberta seedlings, several hundred of which were tested in orchards. An Elberta type of peach both in foliage and fruit, but one week later. Heretofore our stock has been used in the vicinity where it originated. Offered to trade in limited quantity.

W. B. COLE, Painesville, Ohio.

Large Stock of
RHODODENDRONS, CONIFERS, AZALEA MOLLIS, DUTCHMAN'S PIPE, ROSE BUSHES, BOXWOOD, CLEMATIS, HYDRANGEA P. G., BLUE SPRUCE, AMPELOPSIS, ETC.
Will be pleased to submit our special prices upon application.
KALLEN & LUNNEMANN, Boskoop, Holland

Our price list of Ornamental Nursery Stock has been mailed to the trade. If you did not receive a copy send for it.

AUDUBON NURSERIES,
Box 731 - - - WILMINGTON, N. C.

GRAPE VINES

OTHER SPECIALTIES: Gooseberries, Currants.
Send want list for prices.
The JOSSELYN NURSERY COMPANY,
Fredonia, N. Y.

THE CURETON NURSERIES, Austell, Ga.

Offer for fall delivery a fine lot of Lombardy Poplar, Oriental Plane, Silver Leaf Maple, Umbrella China, Tree Altheas, Crape Myrtle, two and three years old at very attractive prices.

Will exchange peach trees for 2 year apple trees. Want evergreens and other ornamental stock for Spring delivery.

ROCK CREEK NURSERIES
M. G. Coplen, Prop. Rockville, Md. R. F. D. No. 3.

J. B. WAGNER

Specialist on Rhubarb, Berries, and Cactus
Prices on Application
Pasadena, - - - California

Let me quote you on
TREE AND SHRUB SEED
CONIFER AND ACORNS
A Specialty
J. F. VON HAFFTEN, Consulting Forester,
Winfield Junction - - Long Island, N. Y.

FOR ROSES LOOK TO

The CONARD & JONES Company,
West Grove, Pa.

TRADE DIRECTORY

Price $3.00, Postpaid
NATIONAL NURSERYMAN PUB. CO. Inc.,
ROCHESTER, - - - N. Y.

SPECIALS!

Besides our usual stock of choice young Deciduous and Evergreen Seedlings for lining out. We have a surplus of Oriental and American Planes 8-10 and 10-12 feet; Lombardy, Volga, and Carolina Poplars, 8-10 feet; Tulip Trees, 8-10 feet; Deutzias, Forsythias, Scotch Brown and other shrubs, 3 to 4 feet specimens. You need our trade list to-day. Send for it.

ATLANTIC NURSERY CO., INC.
R. R. No 4. BERLIN, MARYLAND.

WOOD LABELS

For Nurserymen and Florists

The kind that give satisfaction.

Facilities for the handling of your requisite, combined with the quality of our product is unsurpassed.

Samples and prices are at the command of a communication from you.

Dayton Fruit Tree Label Co.

South Canal St., Dayton, Ohio

STRAWBERRY PLANTS

From the largest Strawberry center in the world; millions of plants; 70 varieties; all of the standard and new market sorts. 1 and 2 year old Asparagus roots; Cal. Privet; Peach trees and etc. Send want list for prices.

BUNTING'S NURSERIES

G. E. Bunting & Sons, - SELBYVILLE, Delaware.

PLEASANT HILL NURSERY CO.

FINLEY & WINDMILLER, Props.

PLEASANT HILL, ILL.

We offer a large stock of Apple Trees, peach, plum and cherry trees, in all leading varieties. Send us your want list for Quotations.

Special price on peach in Car Lots. Better get our prices. We can save you money.

SGARAVATTI BROS. SAONARA

(Padua—Italy)

Fruit Tree Stocks

Wholesale Growers and Exporters of Pear, Apple, Myrobolan, and Angers Quince, Forest Tree Seedlings.

MYROBOLAN SEEDS

Prices on Application

APPLE SEEDLINGS

Kansas Grown. The Best on the Market.

Large Stock in all Grades

Write for prices.

A. WILLIS & CO.

Ottawa, - - Kansas.

The Westminster Nursery

Westminster, Md. J. E. Stoner, Prop.

We are offering for Spring 1916, Peach and Apple Trees, California Privet, Asparagus 1 and 2 year, Downing Gooseberry and Snyder B. B. plants, Berberry Thunbergii in grades.

Can supply the above in car load lots or less. We also have a large surplus of Hydrangeas P. G., Spireas and Deutzias assorted, Evergreens, N. Maple, Horse Chestnuts and Carolina Poplar. Please submit list of wants for prices.

We offer

North Carolina Natural Peach Seeds

We are now ready to quote lowest prices on

FRUIT, SHADE AND ORNAMENTAL TREES, SHRUBS, EVERGREENS, VINES and HERBACEOUS PLANTS

FOREST TREE SEEDLINGS we only have in limited supply this season, and would advise placing your orders early.

TREE SEEDS we can supply in limited quantities.

Send list of your requirements for lowest prices. Trade list ready.

The Willadean Nurseries

Sparta, Ky.

CHERRY TREES CHERRY TREES

The best that it is possible to produce. Good Tops and fine Roots. Foliage held until frost insuring plenty of Vitality, the kind that grow. try our 11-16 up One Year, ask for Sample.

Also General Line of other Nursery Stock. Japan Plums 11-16 up One Year are very fine.

Hardy Budded Northern Pecans and English Walnuts.

Vincennes Nurseries - W. C. REED, Prop.

Vincennes, Ind.

WE OFFER

Grape Vines, Currants and Gooseberries

in all varieties and grades

—also—

Grape and Currant Cuttings and Light Grade of Vines for Lining Out in Nursery Rows

WRITE FOR PRICES

F. E. SCHIFFERLI, Fredonia, N. Y.

ENGLISH NURSERY STOCK

GROWN IN LARGE QUANTITIES

RHODODENDRONS a splendid lot this season, fine bushy plants. Plenty of the hardy Catawbiense named varieties suitable for the American climate including the newer and superior kinds.
AZALEAS, ANDROMEDA, KALMIA and other American plants in great variety.
CONIFERS a large stock, of all hardy kinds.
HARDY ORNAMENTAL, EVERGREEN and DECIDUOUS TREES.
ROSES. Dwarfs and Standards in all varieties.
CLEMATIS AND CLIMBING PLANTS.
FRUIT TREES Espalier trained pyramids in quantity.
MANETTI ROSE STOCKS 1 year splendidly rooted from sandy loam, none better imported.
A general assortment of hardy outdoor stock. Glad to answer inquiries.

THIRTY YEARS SUCCESSFUL TRADING IN THE STATES

No Agents. Write direct for wholesale catalogue to

WALTER CHARLES SLOCOCK, Goldsworth Nurseries, Woking Surrey, England

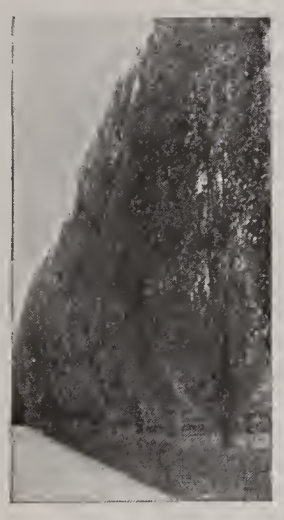
Half an hours rail from London, London & S. W. Ry., Main Southampton Line. Cable Slocock Woking. (A. B. C. Code).

"We Raise Our Own Trees"

Evergreens

Seedlings Transplants

Select from our specialized collection of young conifers for every place and purpose. Stock particularly suited for lining out and forest planting. Your order will have personal attention and the price will be right. Send for our catalogue and save money.



The North Eastern Forestry Co.

Box E. CHESHIRE, Conn.

V.G.'S VERY GOOD

HARDY NURSERY STOCK SUCH AS

AZALEAS, BUXUS,
CONIFERS, EVERGREENS,
PAEONIES, MAGNOLIAS,
RHODODENDRONS, ROSES, ETC.

Offered by

VAN GELDEREN & CO.

Wholesale Nurseries

Ask for Catalogue — BOSKOOP (Holland)

FAIRFIELD NURSERIES

FRUIT AND SEED FARMS

OFFER *for Spring 1916*

GRAPE VINES—One and two years old. Varieties largely Moore's Early, Concord and Niagara.
Also Scarlet or Crimson Clover Seed and Cow Peas. Free from weed seeds, all recleaned and guaranteed first class.
Correspondence solicited. Price list upon request.

CHAS. M. PETERS

P. O. Address, Salisbury, Wicomico County, Md., R. F. D. 3

Long Distance Phone and Telegraph, Salisbury, Md.

The Framingham Nurseries

200 Acres
High Grade
Trees, Shrubs,
Evergreens,
Vines, Roses,
Etc.

DEAL TRADE MARK

Fine Stock
of
Rhododendrons
Kalmias
and
Andromedas

Send for Price List

W. B. WHITTIER & CO.

FRAMINGHAM, MASS.

We have a splendid stock of

Grape Vines

and other small fruit plants for the Nursery trade, graded up to the highest standard and sure to please you.

Give us a trial order, send in your list now for quotations

WHEELOCK & CONGDON

SUCCESSORS TO
WILLETT & WHEELOCK

North Collins, N. Y.

Foster-Cooke Co.

Nurserymen — ***Fredonia, N. Y.***

Growers of

Grape Vines, Gooseberries, Currants

One and two years old. Graded up to the highest standard. Our stock never looked better. Write us for catalog. Send us your list of wants. Our prices are right, our stock A No. 1.

We grow our Stock up to QUALITY and GRADE, not down to a price. Nevertheless, our prices are always in line, you can't afford to pay less, and there's no sense in paying more. If you are pleased with what you have been getting you will be better pleased with our stock.

HATHAWAY'S BERRY PLANTS.

(Lake County Ohio Grown)

You Cannot Buy Better—Even Though You Paid More
The Leading varieties in large quantity, graded in from two to four grades as to variety and class are offered the trade at attractive prices. Send your want list now, that we may quote you a price on the whole want, be it for 1,000 or 100,000.

WE OFFER IN BLACKBERRY

Root Cutting, Sucker or Transplants—Ancient Britton, Eldorado, Erie, Early Harvest, Early King, Blowers, Mercereau, Ohmer, Stones Hardy, Snyder, Taylor, Watt, Ward, Iceberg—and Lucretia Dewberry.

WE OFFER IN RASPBERRY

Tip, Cane and Transplants, (Black) Gregg, Cumberland, Kansas and Plum Farmer. (Purple)—Columbian, Haymaker, Cardinal, Shaffers Collossal, and ROYAL PURPLE (the best of all purple sorts) **(Yellow)—Golden Queen,** very fine cane and transplants of these, at a bargain. **(Red varieties)—St. Regis. (Everbearing)—Perfection, Eaton, Herbert, Loudon, Cuthbert, Miller, Marlboro and Early King.**

STRAWBERRY PLANTS TOO—Only such varieties as produce large to very large berries, including the Fall bearers are grown and offered from

FERTILE ACRES FARMS

Where the most extensive acreage is devoted exclusively to propagating berry plants under one management in Ohio, if not in United States.

Growing fine Plants and Berries is our Business
Prompt Service is our Hobby

Therefore remember when you want plants and service as good as Hathaway's you should buy of Hathaway.

Your for Quality Plants,

Wick Hathaway,
Madison, Ohio.

A. A. of N.
Permanent Badge, No. 157.



"THATS ME"

P. S.—I offer a few hundred Butterfly Bush Plants for Spring delivery.

Peach Trees
and Strawberry Plants

all leading market sorts for Fall, 1915.

MYERS & SON, - Bridgeville, Del.

EUONYMUS VEGETUS

The rarest evergreen climber, common name
EVERGREEN BITTERSWEET

Specimen Arbor Vitae, Norway Spruce, and Hardy Phlox in best quality, can supply in carload lots, get sample and prices.

ADOLF MÜLLER
DeKALB NURSERIES Norristown, Pa.

You can save *TIME* and *MONEY*
if you use our neatly packed

SHEET NURSERY BURLAP

Put up in bales
In various size sheets ranging in size from 24x24 to 40x40 inches
Write for particulars

Sarachan & Rosenthal
64-66 Hanover Street
Rochester, - - New York

J. GOUCHAULT & TURBAT Nurseries.

E. TURBAT & CO.

Nurserymen and Rose Growers
ORLEANS, France,

inform the whole Nursery Trade that, notwithstanding the War, they have maintained their Nurseries up to the usual level, and that they will be from now, very pleased to answer all demands for:

ROSES One of the most extensive existing collections, deliverable as DWARFS, on their own roots; grafted on Dog Rose roots, dwarf budded on Dog Rose seedlings; in all the best Old and New varieties; also as Standards or Tree roses.

ROSE STOCKS, such as ROSA CANINA, of which we have largely increased our production; MANETTI, GRIFFERAIE, LAXA, MULTIFLORA, POLYANTHA, &c.

FRUIT TREE STOCKS
All varieties, all sizes.

Young Deciduous Ornamental Trees & Shrubs
Very important collection

Young Conifers, very large collection. All the best sorts.

NEW RARE or NOTICEABLE TREES and SHRUBS the most up-to-date list published of deep commercial interest, must be consulted by all interested.

Grand List HARDY HERBACEOUS, New and Old, Etc.

Our new Wholesale catalogue is ready. Please ask for it

For **FUMIGATION** With

HYDROCYANIC ACID GAS

"CYANEGG"

Sodium Cyanide in egg shape, each egg weighs as near one ounce as possible. Destroys scale insects on Fruit Trees, Nursery Stock, Plants under glass and in Greenhouses.

Manufactured in U. S. A. by
The Roessler & Hasslacher Chemical Co.
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QUALITY TALKS

This past Fall we sold a dealer a small quantity of Cherry on Mazzard.

When he sent in the order he kicked up a little on the price.

We shipped the goods and told him we couldn't help him any on price.

A day after receipt of the stock we received a letter from Mr. Dealer.

He didn't kick on the goods.

He asked us to reserve a nice big lot for Spring delivery.

Without a word about the price.

Quality talks, every time.

We've got both sour and sweet on Mazzard stock.

And if you want Cherry on Mahaleb ---why we've got those also.

Our January 1st list tells you the varieties.

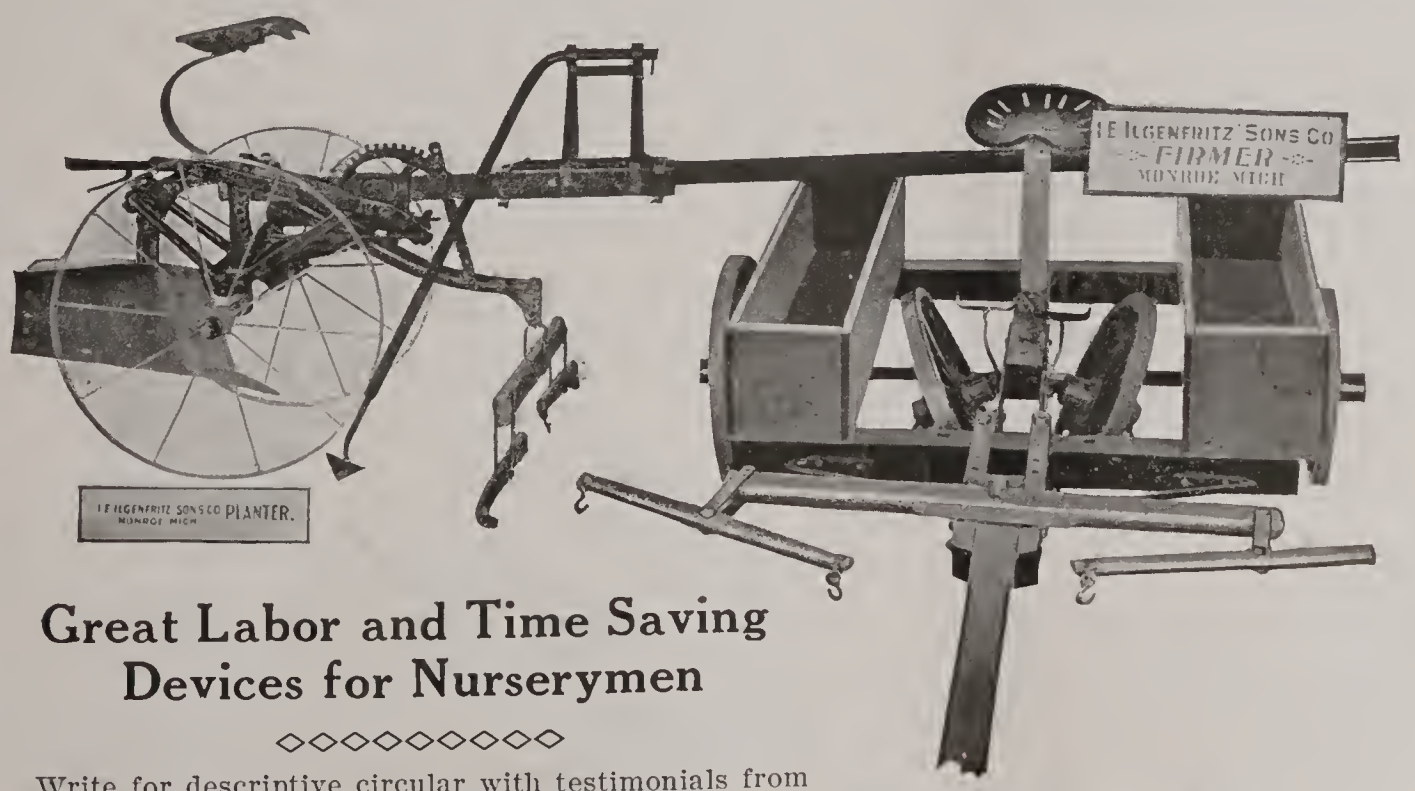
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The Rochester Nurseries

Established 1857 *Growers of Quality Stock* Rochester, N. Y.

I. E. ILGENFRITZ' SONS CO.

Planter and Firmer



Great Labor and Time Saving Devices for Nurserymen

Write for descriptive circular with testimonials from leading nurserymen of 17 states of the Union.

If they can't get along without them can you?

TAKE THIS MATTER UP AT ONCE. Have machines for spring planting.

BETTER
AND MORE
UNIFORM
STANDS
OF STOCKS
GRAFTS
CUTTINGS
ETC.
At Less Cost.

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Palms and General Decorative Plants, Conifers, Shade and Ornamental Trees

INSPECT INVITED

ASK FOR WHOLESALE CATALOGUE

FRUIT TREES
ROSES
MANETTI STOCKS
in heavy quantities
Please write direct as we have no agents
Catalogue free on application

S. SPOONER & SONS,
The Nurseries - Hounslow,
Est. 1820 England

A Large Stock of
Apple, Pear, Cherry and Peach
Grape Vines, Blackberry and
Raspberry Plants
And a general line of ORNAMENTAL TREES and SHRUBS. All stock clean and thrifty, the best that can be grown.
T. B. WEST, Perry, Ohio

TREE and SHRUB SEEDS



From Russia, Siberia, Caucasus, Turkestan, etc., for sale at low prices.
FOREST SEED MERCHANTS SPEC A LT
St. Przedpelski & T, Antoniewicz
In KIEW Russia
INSTYTUTSKA STREET N 8
Established 1907
Price List Sent on Application
WANTED-*American Tree Seeds offers will oblige*

We offer for Spring 1916

A complete line of High Grade Nursery Stock. 50,000 Peach trees—leading varieties. Keiffer Pear— 500 bushels N. C. Peach Seed, crop 1914. Oriental Planes, Pin Oaks—Norway Maples 8-10 ft. extra fine, straight bodies, 3 year transplanted (Holland grown). Cannot be beat in this country.—Norway Spruce, Spirea Van Houttii (exceptionally nice) 25,000 Sugar Maples Seedlings (Small) for lining out.

Send us your list for quotations.
W. T. HOOD & CO.
OLD DOMINION NURSERIES
RICHMOND - - VIRGINIA

Peonies

The best sell best. To merit critical trade the best must be offered.

14 acres—The best extant-cream of 1200 sorts. Special collections of 12, 20, 25 or more sorts, 25 or 50 each, our choice cheap.

Cannas, Dahlias, Dielytra, Gladioli, Hemerocallis, Iris, Strawberries. The very best, send for list, delivery now or spring.

C. BETSCHER
CANAL DOVER - - OHIO, U. S. A.

THE FLORISTS' EXCHANGE

EVERY SATURDAY
Advertising Space, $1 Per Inch Subscription, $1 Per Annum
Under this title we publish the most reliable, progressive and up-to-date trade paper in the country, with departments covering the **Nursery, Florist, Seed Trade and Allied Industries.** With a paid up subscription and distribution list of 9000 copies, nearly every copy of which is to men in business for themselves the worth of our columns will be readily appreciated. The editor of our Nursery Department is and has been for years, JOSEPH MEEHAN, of Philadelphia.
For sample copy, discounts, etc., address
The Florists Exchange, P. O. Box 1697, New York City.

RICE BROTHERS COMPANY.
Geneva, - - - N. Y.
Before placing your order for Spring 1916, get our prices on:—
APPLE, PLUM,
PEAR STD. and DWARF,
PEACH, CHERRY,
QUINCE, APRICOT,
ROSES, SHRUBS,
ORNAMENTAL TREES, ETC.
Large assortment of above.

Portland Wholesale Nursery Co.
Rooms 6 & 7 122½ Grand Ave. Portland, Oregon
WHOLESALERS OF NURSERY STOCK AND NURSERY SUPPLIES
A very complete Line of Fruit and Ornamental Trees, Shrubs, Vines, &c.
Specialties
CLEAN COAST GROWN SEEDLINGS
OREGON CHAMPION GOOSEBERRIES
and PERFECTION CURRANTS
Write now.

TREES
Largest assortment in New England. Evergreens, deciduous trees, both common and rarer varieties. Sturdy, choice stock that can be depended upon. Send for catalog and special trade prices.

The Bay State Nurseries
North Abington
Mass.

SHRUBS
This New England soil and climate produce fine sturdy shrubs. Special trade prices. By the thousands, hardy Native and Hybrid Rhododendrons—transplanted and acclimated. Send your lists, let us est.

ORNAMENTAL STOCKS

NURSERIES
420 ACRES

WE GROW

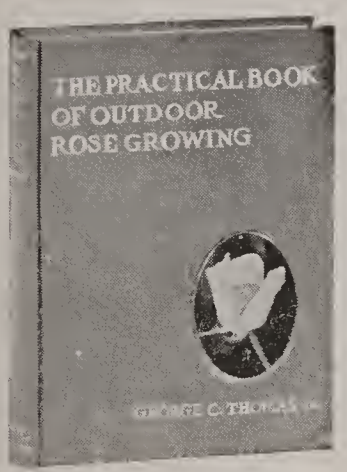
FRUIT TREE STOCKS—All Sizes.
300 varieties of Conifers, 1 to 4 years old.
1200 varieties of Ornamental Trees and Shrubs, 1 to 3 years old.
1600 varieties of New and Old Ornamental Trees & Shrubs in all Sizes
250 varieties of Climbing Plants.
400 varieties of Conifers, 1 to 4 feet high.
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800 varieties of New and Old Roses.

We Have No Agents. Write direct to us and ask for WHOLESALE CATALOGUES

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If you love roses and grow them, or desire to, you will need the explicit and authorative instructions covering every phase of the subject in this work, the result of 15 years' close study of rose growing for the home garden. You will get big value in this beautiful large octavo volume, bound in handsome cloth, gold stamped, in a slip case.

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½-inch, ¾-inch, 1-inch and wider, cut to any length from 8 inches to 72 inches, at lowest possible prices Have, sometimes, bargain lots of steel strapping, 1-inch to 1½-inch wide, random lengths. : : : :

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QUALITY AND SERVICE

FRUIT PLATES, BINDINGS, NEW DESCRIPTIVE CATALOGUES, READY MADE PLATE BOOKS, PRINTED FORMS.

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For Nurserymen and Florists are Excelled by None

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NORWAY MAPLES

The finest and most satisfactory of all shade trees



The Norway Makes a Splendid Avenue

We have the largest blocks in America,--all sizes for all purposes. Our maples have straight, smooth trunks, fine tops and clean, strong roots,--they will make good. Tell us how many you can use and the sizes and we will quote interesting prices. Better yet, come to the Nursery and inspect and mark the trees for yourself. You will be pleased with what we have to offer.

NORWAY MAPLES (Acer platanoides) have typical Maple leaves, large and bright green, fading to gold in the fall. Trunk and branches are sturdy and strong, lending an effect of ruggedness. Growth is fast. Branches and foliage are thick and compact, and the head, which is round-topped, begins to branch not far above the ground. The tree is large, towering 50 feet high when fully grown. For lining the sides of lanes and roads, for a lawn, to protect the house from sun and weather, for shade, and for real permanent worth in all landscape planting, there are no other trees in its class. THE HANDSOMEST AMERICAN LAWN TREE.

We offer:—

3,000	6 to 7 ft.	¾ in.
5,000	7 to 8 ft.	1 in.
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27,500	10 to 12 ft.	1½ to 1¾ in.
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15,000	14 to 16 ft.	2 to 2½ in.
11,000	2½ to 3 in.	
5,000	3 to 3½ in.	
550	3½ to 4 in.	
200	4 in.	
75	5 in.	
30	6 in.	

Ask for our special prices on car lots. Do it now.

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THE NATIONAL NURSERYMAN



FEBRUARY 1916

Published Monthly at Rochester, N. Y., U. S. A., in Behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General

THE MONROE NURSERY
Established 1847.
Offers a Fine Stock of

Peach, Gooseberries, Currants, Berberis, Spirea Van Houtte, Other Ornamental Shrubs, H. P. Roses, Etc.

Will be pleased to quote on your list of wants

I. E. Ilgenfritz' Sons Co.
MONROE, MICH.

MOUNT ARBOR NURSERIES
E. S. WELCH, Proprietor
136 Center St., :: Shenandoah, Iowa

A Complete Line of High Quality Nursery Stock for
WHOLESALE TRADE
APPLE TREES—Over 100 Varieties
CHERRY, PLUM, PEAR, PEACH
BLACKBERRIES—Large stock root cutting plants
GOOSEBERRIES, CURRANTS, RASPBERRIES,
ORNAMENTAL TREES, SHRUBS, VINES
ROSES—Immense stock hardy kinds
PLANTING STOCK
Fruit Trees Stocks, Ornamental Shrubs and Deciduous Seedlings
Ask for Winter Trade List.

Send us your list of wants
Our general trade list for Spring 1916 was issued January 1st.

SAPA. 9-16 and 11-16
(On Native Plum Roots)
The most popular of the Hansen Hybrids

CLEMATIS JACK
Strong 2 yr. No. 1 plants. Home grown.
At a bargain price.

The Jewell Nursery Co.
Wholesale Nurserymen
LAKE CITY, MINNESOTA
Established 1868 1500 Acres

There is just one kind of Berberry Thunbergii Seedlings we grow

Top Notch in All Respects

ORDER NOW

We are growing 500 acres of other lines of stock. Our JANUARY BULLETIN will tell the story. If you don't receive it, write at once, it is a money-saver for you.

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MANCHESTER, CONN.

For Spring 1916

300,000 APPLE, 2 & 3 year, splendid trees

75,000 CHERRY, 2 year, none better

200,000 CHERRY, 1 year, fine

40,000 PEAR, 1 & 2 year

40,000 PLUM, 1 & 2 year, fine

Also large stock of ELM, NORWAY, SUGAR, S[illegible] MAPLE, CATALPA BUNGII, and a general assortme[illegible] other ornamental trees, shrubs, hedge plants, perenn[illegible] small fruits, etc.

We can furnish ornamental trees in almost any [illegible] wanted.

A fine growing season, a fine lot of stock

C. M. Hobbs & Sons

Marion County, - - Bridgeport, I[illegible]

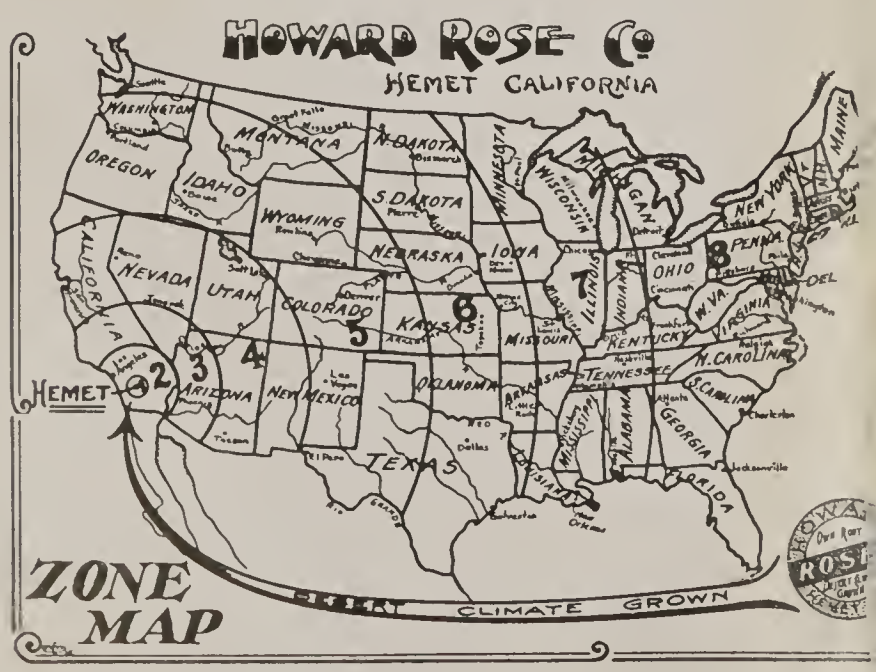
FIELD GROW[illegible]

OWN ROOT ROSE[illegible]

For JAN. FEB. and MARCH

By Express— Rate ¼c. per Zone number, Guara[illegible] not to exceed (i.e. - In 5th. Zone to our prices ad[illegible] cents) Send for our prices, on printed stationery, p[illegible]

By Freight— Via. Cold Storage, Deliveries after 25, 1916, Only Hard Sorts.



Now is the time to order

DIRECT IMPORTATIONS

From European Nursery Centers.

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Pear, Apple, Myrobolan, Mahaleb, Mazzard Manetti, Multiflora and Quince. Also a full line of Ornamentals for lining out. Best packing and grading. December and February shipments from **Vincent Lebretons Nurseries, Angers, France.**

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Boxwood (bushes, pyramids, standards, ball-shape, etc.) Roses, Tree Roses, Azaleas, Magnolias, Rhododendrons, Koster Blue Spruce, Evergreens, etc. Fall or Spring shipment from **Schaum & Von Tol, Boskoop, Holland.**

DECIDUOUS TREES

Norway and Schwedler Maples, Tilias, Oaks, Elms, Chestnuts, Planes, Thorns, etc. Straight stems, good roots, careful selection. Fall or Spring shipment from **Union Nurseries, Oudenbosch, Holland.**

HERBACEOUS PERENNIALS

Full list of varieties, also Aquatics, Rock Plants, etc.; low prices. Fall or Spring shipments from **Royal Tottenham Nurseries, Dedemsvaart, Holland.**

ENGLISH STOCK

MANETTI, Gooseberries (Whinham Industry, Whitesmith, Keepsake, Crown Bob, etc.), 2 and 3 years. Fall or Spring shipment from **John Palmer & Son, Annan, Scotland.**

BAY TREES from Belgium. All sizes, hardy Lilies from Japan, all varieties.

RAFFIA, Red Star, XX Superior, Arrow and AA West Coast Brands. Bale lots or less.

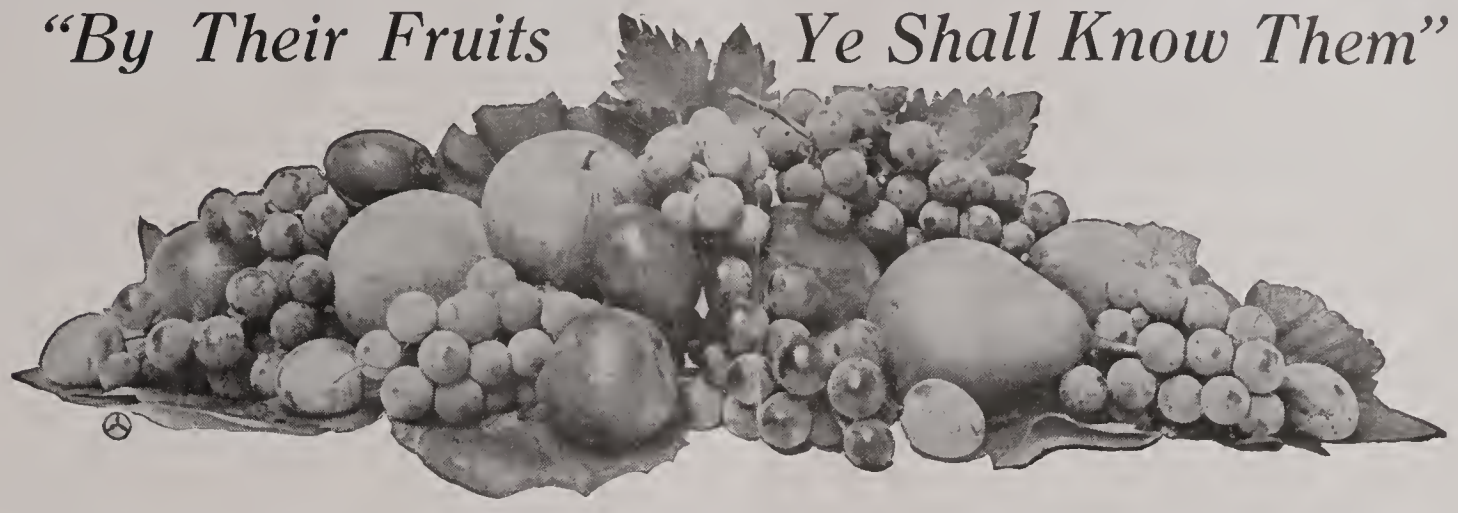
Shipping. We have our own Custom House department, with shipping connections at all shipping ports. We attend to the procuring of permits and all formalities.

McHutchison & Co., The Import House

17 Murray St., New York

PAINESVILLE NURSERIES

"By Their Fruits Ye Shall Know Them"



The scripture quoted above is not inappropriate as used in connection with a Nursery ad. It applies not only to the fruit-bearing trees which nurserymen sell; it equally measures their business policies, and the men who inspire and direct them. Carry the theme as far as you like; while we pass directly to the subject of

FRUIT TREES. While we have a large and very complete assortment of fruit trees of all kinds, we are particularly strong this year in PEACHES, standard PEARS and Plums. They were well grown and handled; are up-to-grade, strong rooted, shapely and of virile quality, in all the standard varieties.

SMALL FRUITS. The planting of small fruits has ceased to be merely an incident of diversified farming, it has become an investment; and sales are rapidly increasing. We have established a supply of the most popular sorts, in quantity sufficient to cover any probable demand.

In GRAPES, we are strong on fine 2 year, No. 1 Concord, Moore's Early, Worden and Niagara, besides a score of other well-known varieties. In RASPBERRIES and BLACKBERRIES, we can furnish all the best sorts in great numbers. In STRAWBERRIES we offer a splendid list of tried and proven kinds, many being wonderful improvements over older types. In regard to FALL-BEARING STRAWBERRIES, we have two kinds, Superb and Progressive, which we have fruited long enough to know they are all to the good; and worthy of our hearty recommendation.

ORNAMENTAL TREES. Ash, Elms, Sycamores, Maples, etc.,—all through the list of street, lawn and grove trees,—we can furnish in quantity in most all practical sizes.

DECIDUOUS SHRUBS of all kinds, we have in abundance; the general grade being 2 to 3 and 3 to 4 feet; our stock of Barberry, Privet, Forsythias, Kerrias, Cornus and Deutzias being unusually extensive. We have now on hand some splendid imported specimens of the new Snowball, Viburnum Carlesii.

Again referring to scripture: however large the ash pile,—the PAINESVILLE NURSERIES are still out of "the fire" after sixty-three years of continuous service and fruitfulness. Which is a pretty good recommendation for fruits—you should get to know.

We acknowledge with thanks a great many Want Lists, upon which we have quoted. We appreciate their submission, and the very good early business already derived through them. Are there yet others whom we may serve?

The Storrs & Harrison Company

PAINESVILLE, OHIO.

[illegible] Acres 45 Greenhouses

WE CAN USE

CALIFORNIA PRIVET, AMOOR RIVER PRIVET, SHRUBS,
Staple varieties; ROSES, field grown.
In exchange for

PEACHES, 1 year	No. 1	Medium
Admiral Dewey	1545	
Alexander	700	
Beer's Smock	3140	1800
Belle of Georgia	1895	300
Bokahra	1275	
Carman	3800	790
Chair's Choice	1370	985
Champion	970	560
Crosby	3265	710
Crawford Early	3120	2520
Crawford Late	1780	1850
Elberta	6500	4100
Fitzgerald	640	
Foster	755	
Fox Seedling	1300	425
Greensboro	935	
Lamont	2410	795
Mayflower	2310	
Morris White	1425	1140
Mountain Rose	1595	550
Niagara	2510	1040
Old Mixon Free	1695	715
Salway	3340	930
Stump-the-World	1035	860
Triumph	240	
Wheatland	310	60
Yellow St. John		400

CURRANTS, 2 years, extra fine	No. 1 grade	Medium grade	No. 2 grade
Black Champion			600
Black Victoria	3300	475	1150
Boskoop Giant	1780	450	285
Cherry			1950
Fay's Prolific		14000	17600
Lee's Prolific	1200	200	925
Perfection		345	4800
President Wilder			1400
Red Cross	725	100	1200
White Grape	6800	5500	4900

GOOSEBERRIES, 2 years, strong plants	No. 1 grade	Medium grade	No. 2 grade
Downing	7200	2700	2025
Houghton	9000	1475	210

JACKSON & PERKINS CO.
Newark, - - New York State.

Heikes—Huntsville—Trees



Huntsville Wholesale Nurseries
Huntsville, Ala.
MILTON MOSS, Prop

We offer for Spring of 1916 in large quantities as usual:

Alabama's **C**hoice **P**roduct
All **C**orrect **P**rices
Carefully **P**acked

Apple
Apricot
Abelia Gf.

Cherry
Compass--Cherry--Plum

Peach
Pear
Plum
Pecan seedlings
Privet

ROSES: Budded H. P's. One of our specialties. We grow them by the hundred thousands.

SUNDRY ORNAMENTALS

Send us your orders and inquiries
See Price List for Particulars.

HUNTSVILLE WHOLESALE NURSERIES
HUNTSVILLE, ALA.,

Hill's Evergreens

You can work up a good profitable trade in Evergreens if you have the right kind of stock. Our main specialty for over half a century has been the propagation of young Evergreen stock for the wholesale trade in immense quantities at low prices.

We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S. A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

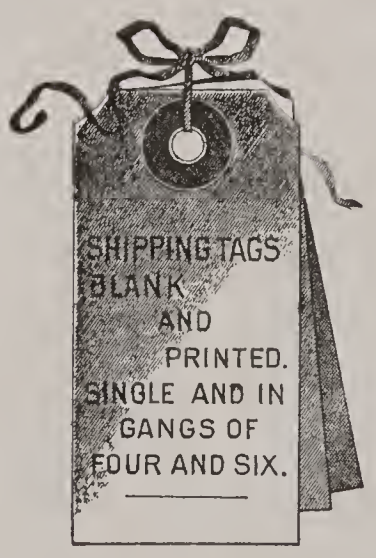
YOU want to keep posted on Evergreens;
WE want to become better acquainted with you;
Let's get together.

The D. HILL Nursery Co., Inc.
Evergreen Specialists
LARGEST GROWERS IN AMERICA.
Box 401 - Dundee, Ill.

Have you seen and examined the quality and finish of our

Rawhide Brand of Shipping Tags and Tree Labels

printed or plain, strung or wired?



This stock is especially adapted to the most severe usage, being thoroughly waterproof & weatherproof. "Once used, always used."

Send for samples and prices. Our references are the largest nurserymen in the United States.

The Denney Tag Co.
West Chester, Pennsylvania

W. FROMOW & SONS

We specialize in Hardy American Rhododendrons and offer all the best varieties with brightest colors, hardiest sorts and largest trusses. They are all grown in open fields on black sand and sandy loam.

We can also offer largely Dwarf, Climbing and Standard Roses. All the newest most popular varieties.

Common Beech and River's Purple grafted Beech to offer in very large quantity. Clean straight stuff and well rooted. Can quote on stock transplanted Spring 1914 or 1915.

Full particulars of the above and other stocks, nearly 300 acres in extent, contained in our wholesale catalogue free on application.

WINDLESHAM NURSERIES

Surrey, - - - England.

SCARFF'S NURSERY

Headquarters for

Small Fruit Plants

1200 Acres "At it 25 Years"

Strawberries	Currants	Rhubarb
Raspberries	Gooseberries	Asparagus
Blackberries	Grape Vines	Horseradish
Dewberries	Privet	Hardwood Cuttings

100,000 transplanted Raspberry, Blackberry and Dewberry plants for retail trade. See wholesale list before placing your order.

W. N. SCARFF

New Carlisle, Ohio

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∴Peach Seed∴

Can supply a fine lot. The price is right, quality considered. How many for you?

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J. VanLINDLEY NURSERY Co.

Pomona, N. C.

For SPRING 1916.

A choice lot of Apple, Plum, Cherry, Pear, Apricot, Peach, Currants, Roses, Barberry, Thum., Cal. Privet, Hydrangea P. G., Bud Sticks and Currant Cuttings in the leading varieties. Don't place your order without getting our prices.

MANEY & SAYRE, Inc.

Wholesale Nurseries,

GENEVA - - - NEW YORK

Charles Detriche, Senior

ANGERS, FRANCE

Grower and Exporter of Fruit-Tree Stocks, Forest Tree Seedlings, Rose Stocks, Shrubs, Vines, and Conifers for Nursery Planting.

For all information as to Stocks, prices, terms, etc., address

Jackson & Perkins Co.

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Editors of the "H. A." LOWDHAM, NOTTS, ENGLAND

ESTABLISHED 1893 **THE NATIONAL NURSERYMAN** INCORPORATED 1902

The Official Organ of the American Association of Nurserymen

The only Trade Journal devoted exclusively to the interests of growers and dealers in nursery stock.

Edited by a practical nurseryman, Ernest Hemming, Flourtown, Pennsylvania to whom all correspondence pertaining to the Editorial Department, should be addressed.

Nurserymen cannot afford to be without a trade paper. The advertising pages, patronized by all the leading nurserymen throughout the world, will save many dollars to the subscriber. These pages are a record of the stock offered for sale.

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Ussy and Orleans, France

Wholesale Growers and Exporters of

Fruit and Ornamental Stocks, Evergreens, Herbaceous plants, Roses, Manetti, etc. Largest shippers to America.

M. GIELEN NURSERIES,
Oudenbosch, Holland.

Extensive growers of FOREST, AVENUE, and ORNAMENTAL Trees and Shrubs, Evergreens, HARDY ROSES, Etc.

W. KEESSEN Jr. & ZONEN,
Terra Nova Nurseries, Aalsmeer, Holland

SPECIALISTS IN BOXWOOD of all shapes, also TOPIARY clipped forms, MAGNOLIAS, hardy AZALEAS, RHODODENDRONS, Etc.

IMPORT ORDERS for FALL DELIVERY are booked now for BULBS from JAPAN, HOLLAND, FRANCE; BAY TREES from BELGIUM, Prime RAFFIA furnished in original bale lots; and other Nursery and Greenhouse Supplies

CUSTOM HOUSE BUSINESS
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Can furnish some extra heavy trees for landscape work.

We also offer Kansas grown Mahaleb

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Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, California Privets, Barberry THUNBERGII, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

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We have the Largest Stock of Forest Seedlings and Shrubs

TO BE FOUND IN UNITED STATES

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TREE BOX, 3 to 6 feet

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SURPLUS STOCK. Yes; there is some. I have a line on some good items that I can sell in quantity at interesting prices, because I have have no brush-heap; I buy only what I sell, know what, where and how to buy, and I have no big overhead expense. And you save it in the price, plus quality, without which I wouldn't try to talk to you. If inclined to buy now or later, write me; costs a stamp, saves dollars.

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Seedlings and Stocks for Nursery Planting. Write my Agent, JOHN WATSON, Newark, New York, for prices and any information.

JOHN WATSON

NURSERYMAN

NEWARK - - - - NEW YORK

February 1, 1916.

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Before placing an order for Apple Seedlings— get a sample.

Our No. 1 3-16 and all up straight Apple Seedlings run fully 50 per cent 1-4 inch. Our No. 2 roots are extra heavy. Our No. 3 are grafting size for light cions.

We can supply all grades, in both straight and branched roots. These stocks are strong — vigorous — healthy.

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Apple and Pear Seedling Specialists.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK
The National Nurseryman Publishing Co., Incorporated

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State Nursery Stock Laws and Interstate Commerce

Read Before the Western Association of Nurserymen at their 25th Annual Meeting December 9, 1915

By Curtis Nye Smith

TWO years ago, this country was desperately near a terrible war with a great nation, because one of our states had enacted a local law designed to protect its citizens from certain alien land owners. This law, however, contravened the terms of a Treaty which the United States Senate, acting within its constitutional duties and rights, had made with this foreign nation. There was a tremendous feeling of antagonism and criticism of the good faith of this country. The President sent the Secretary of State, a most unusual procedure, to plead with the Governor and Legislature of this State to abandon the law, not on the ground of the illegality of the state law or because of its unconstitutional conflict with national rights and powers, but as a favor and to preserve peace. This is but one illustration, out of a countless number, of the extraordinary and lamentable contests between state and national powers. The historical, political, judicial and economic development of this conflict reads like a romance.

For the purpose of introducing the subject under discussion, it is sufficient to say, that, from the foundation of this government there has and always will be a contest between State and Federal rights and powers. It was only after the most strenuous efforts, arousing bitter and enduring controversies, that the states surrendered to the National Government by means of the Federal Constitution, adopted in 1789, certain powers, one of which was the right of Congress to regulate and control the commerce between the states and foreign countries. This commerce between the states we call interstate. Just what is, or is not, interstate commerce is not defined by the Constitution. For this definition we must and do look to the interpretations gradually, haltingly, and sometimes uncertainly enunciated in the decisions of the Supreme Court of the United States. As the methods of trading have changed or expanded, as the means of transportation and the communication of merchants have been made quicker and easier, this great court has added to its definitions of interstate commerce and explained the limitations of the state laws in restriction of such commerce. Nevertheless, the subject, except in its general principles, is difficult of understanding both theoretically and practically. The business man transacting business in many states, in which there are numerous and difficult restrictive laws, demands to know how he can safely ship his merchandise in interstate commerce without submitting to those burdensome laws. It is the object of this discussion to point out in ordinary language the relationship of state nursery stock laws to interstate commerce in such merchandise.

While the Congress has, as we have seen, control of interstate commerce, there are two apparent, and in practice real exceptions to the general rule. By the Federal Constitution the States have reserved to themselves the power to inspect imports or exports. The other power, not mentioned in the Constitution but reserved to the States, is the police power of the States to enact reasonable and appropriate laws to protect the morals, health, safety and general welfare of their citizens, and to prevent fraud and deception. Under these two powers only can interstate commerce be affected by State laws. The United States Supreme Court has recognized these state rights, but only with certain limitations, such as, for example, that the state laws must be reasonable, must not unfairly discriminate against interstate commerce, must not, under the guise of inspection laws be in effect revenue measures and a direct regulation of interstate commerce. As a result of the Supreme Court decisions it may with some assurance be stated that the states, with the probable exception of New York State, which, except in certain particulars, has, by its constitution prohibited inspection laws, may enact these nursery stock laws in order to provide inspection for the detection and elimination of injurious plant diseases and pests, and for the sole purpose of paying the cost of such inspection may charge such reasonable fees as have a proper and direct relationship with the costs of such inspection. These laws may in direct terms, prohibit or restrict the introduction of nursery stock affected by such diseases or pests. The practical effect is that interstate commerce is regulated by this class of laws just described. On the other hand these nursery stock laws have been

very carelessly drawn by persons unacquainted with the constitutional limitations, or indeed, with little knowledge of proper statutory construction. It is, of course, impossible in this brief discussion to catalogue all the faults of the numerous state nursery stock laws. It is sufficient at the present time to cite a few examples of state nursery stock laws which appear to offend the constitutional requirements above noted. A Maine nursery stock law required "agents" who wished to sell nursery stock to take out a license fee of $10.00, these fees going into the general treasury of the state. An agent of a New York nurseryman, not paying this fee, was arrested, tried, found guilty, but, on an appeal, the Supreme Court of Maine reversed the judgment on the ground that the agent was not selling nursery stock. The Court did not discuss the constitutional question raised, namely, that the license fee was a revenue measure, and so a burden on interstate commerce. However, this law was promptly amended to conform to the criticisms on the constitutional question, thereby recognizing the justice of the nurseryman's contention. Cannot the same thing be said of the Michigan nursery stock law where the license fees are paid into the treasury of the state without any provision for the use of such moneys for the charges of inspection?

The state entomologist of Oklahoma has recently requested ex-state nurserymen to file a bond, one of the conditions of which is that the nurseryman desiring to solicit orders for nursery stock shall buy, sell, etc., only such nursery stock as has been duly inspected and certified by an official state inspector of the state of Oklahoma. In the first place this bond appears to have a fatal defect because the statute from which it must derive its force and effect wholly fails to provide what this bond is for and what shall be its conditions. To give it life by judicial construction or administrative regulation would practically be a usurpation of legislative functions. Another rather amusing defect of far-reaching results is that the bond is required of one who "desires" to sell. Now the criminal and civil law is not interested in an intent harbored in the mind and it is not punishable, as the Maine Supreme Court decided in the nursery stock case above cited, in which the objectionable law penalized one who *desired* to sell nursery stock.

This Oklahoma bond raises a constitutional question which is unanswerable. It requires the agent of ex-state nurserymen "desiring" to solicit orders in Oklahoma, a purely interstate transaction, to buy and sell, etc., only Oklahoma inspected stock. This of course is physically impossible. Under the limitations imposed by the Federal Supreme Court as above mentioned, this requirement is thoroughly unreasonable, and for the further reason, propounded by the Supreme Court, that the inspection would necessarily be beyond the jurisdiction of Oklahoma. The regulation is an unwarranted burden on interstate commerce. These objections being presented to the Oklahoma officials, a new form of bond has been offered to the nurserymen, but still fatally defective, though omitting the impossible inspection by Oklahoma officials in another state.

The Michigan Nursery stock law provides, in one section, that all nursery stock imported into Michigan must, before entry, be fumigated by hydro-cyanic acid gas while Michigan grown stock is only required to be fumigated if grown within one-half mile of where San Jose scale exists. This is an obvious discrimination against interstate commerce, which, under some decisions of the United States Supreme Court and in the opinion of some attorneys, is unconstitutional. Even if, as is the opinion of some lawyers, the writer being one, there can be discriminations against ex-state products under certain conditions, we still have the question whether this is a reasonable regulation of interstate commerce. From opinions of those competent to give advice as to the effect of this gas on nursery stock if used in sufficient quantities to kill the San Jose scale, it is alleged that certain kinds of nursery stock would be destroyed by this fumigation process. It is also stated by these experts that not all forms of nursery stock are affected by the San Jose scale. These facts being true the Michigan law requiring the ex-state nurserymen to fumigate all nursery stock offered for importation into Michigan is burdened with conditions not imposed on the Michigan nurseryman. Some of his stock which is never affected by the San Jose scale has to be fumigated; some of his stock though it is free from the San Jose scale cannot, because the fumigation process destroys it, be imported into Michigan. The only possible reason whereby this discrimination can be upheld is that this extreme regulation against interstate commerce is the only means by which this obnoxious San Jose scale can be kept out of Michigan. This is not the case. This scale can be readily detected by inspection without any difficulty and by a perfectly feasible system of inspection of imported nursery stock. If such inspection discloses the presence of San Jose scale, let the authorities take proper action to prevent further shipment, or let there be penalties for the introduction of nursery stock affected with the San Jose scale. The situation is somewhat comparable to the Missouri statute which absolutely prohibited the introduction of *all* cattle fro mcertain states for a large part of the year. The statute was designed to keep out of Missouri the dreaded Texas fever. The United States Supreme Court held this statute an unreasonable burden on interstate commerce, because as is evident, it prohibited interstate traffic in healthy cattle.

If we now consider in the briefest manner what the United States Supreme Court has held to be interstate commerce, we can conclude these remarks. It is interstate commerce:

(1) When goods are shipped F. O. B. by the vendor in one state to purchasers in another state. Method of payment for goods is not a determining factor.

(2) When orders for goods are solicited in another state by advertisements, catalogues, traveling salesmen or other methods.

(3) When, as a result of acceptance of orders secured by traveling salesmen, advertisements, catalogues, etc., the goods are delivered at sellers' risk and cost at purchaser's residence in another state, method of payment of goods not being a determining factor.

In these circumstances or when shipment is Bill of Lading to shipper or order, draft attached, there is technically a retention of title in vendor until after arrival of goods in the other state, but the United States Supreme Court has stated that this is merely an incident of collection of payment, the contract of sale being consumated in the vendor's state.

(4) When vendor in one state ships goods to a factor or broker in another state for sale on commission, the title to remain in the ex-state owner until goods are sold.

(5) When ex-state persons establish and maintain branch offices or agencies in another state provided the agents merely solicit orders which are sent to the home office for acceptance.

(6) And these branch offices may also act as distributing agents for the interstate shipment and delivery of the goods on orders previously sent.

(7) When an ex-state vendor maintains a storehouse in another state to which goods can be shipped as ordered and from which they can be distributed.

The obvious conclusion of this discussion is that the state's interference with interstate commerce by means of the state's police power and its constitutional right of inspection is one of great difficulty, and that these laws should be carefully drawn. Nurserymen admit, I believe, that state nursery stock laws are entirely proper and necessary to protect the farms, orchards, and woodlands of this country from devastating diseases and pests likely to be introduced on nursery stock. I am equally positive that these nurserymen do not agree that this means a license to state legislatures and more particularly to over-zealous inspection officials to enact or promulgate unfair burdens on interstate commerce contrary to the rights secured by the Federal Constitution. When a state official charged with the execution of a nursery stock law not only persistently interferes with interstate commerce, even when such interference is unsupported by the provisions of the state statute, but frankly admits, as he did to the writer, that he "did not believe in, nor approve of, the nursery business carried on through any catalogue measure," and that if nurserymen of other states wish to take advantage of the markets of his state, they should pay for that privilege, the nurserymen are justified in inquiring if they have any rights under the Federal Constitution.

The Cost of Growing Ornamental Stock

A Paper Read at the 13th. Annual Meeting of the Pacific Coast Association of Nurserymen

By Howard Everts Weed, Beverton, Oregon.

ONE of the first things which I noticed upon coming to the Pacific Coast was the varying prices asked for ornamental plants. When Weigelas are priced at 75 cents each and Junipers at the same figure, it is very evident that the grower pays no attention to the relative cost of production, simply desiring to strike a fair average for his selling price.

A nurseryman is a manufacturer just as surely as is Henry Ford. He produces his finished product in a different way, to be sure, from most manufacturers, yet he does produce the finished product just the same. The nurseryman should study the cost of the production of his various products in order that the selling price may be placed at the same relative price as the cost of production It is a well understood rule among manufacturers that the lowest selling price is double the cost of production. This rule is arrived at by a study of the cost of overhead expense such as interest, insurance, advertising, postage, etc., and any article manufactured must sell for at least double its cost of production or the receiver is on his way to the factory.

I am sure that this same rule should be followed in the nursery manufacturing business. Let us determine the cost of production. Then double this figure as the lowest jobbing price. Then add ten per cent. to this jobbing price and we have the wholesale price. Then add from 30 to 40 per cent. to the wholesale price and we have the retail price.

The cost of the manufacture of ornamentals varies greatly. Some plants are easily propagated and quick to reach the selling stage. Others require more time and care in propagation and grow so slowly that it seems like they never would get large enough to be sold. Some plants are sold within one year of their propagation, while others require our care for eight or ten years. It is but common sense to conclude that the longer we have a plant on our grounds the more it is costing us to produce it.

Some manufacturers of plants have superior advantages over other manufacturers in that their factory is better located so far as soil and climatic conditions enter into the manufacture of the finished goods. Some factories may be located so as to produce superior roses, others superior rhododendrons, others superior evergreens, etc. It is common sense to say that a manufacturer of plants can produce the best and cheapest plants where the soil and climatic conditions are best suited for any special plants. But any nurseryman as a manufacturer should not equip his factory with anything which will in any lower the cost of production. In this category comes labor saving tools, water supply, and propagating houses.

We of the Pacific Coast should study the cost of production more than we have heretofore. We may not be able to arrive at the exact cost of production, yet we can at least arrive at the approximate cost. If Weigelas are to be sold at 75 cents each, then Junipers should sell at $3.00.



From the U.S.D. of A.

CONTROL OF "DAMPING OFF."

Damping-off Disease of Young Coniferous Seedlings Effectively Controlled by Soil Disinfectants.

Damping-off of coniferous seedlings has been one of the worst enemies of nurserymen. This is caused by several parasite fungi which attack and rot the stem and root of young seedlings. The loss from this source is not generally appreciated, for the poor stand of seedlings is frequently laid to poor germination. While the loss in one year from this cause may amount to but 10 per cent., yet in the next year damping-off may cause a total failure of the stand. This uncertainty of crop has resulted in the high cost of coniferous trees for forest planting and has in the past caused American nurserymen to purshase their seedling stock in Europe. On account of the white pine blister rust and the pine shoot moth introduced on imported pines from Europe, an embargo has been placed on all pine nursery stock grown in Europe. This makes it doubly important that the damping-off of seedlings be controlled.

A measure of control has been secured at some nurseries by the use of sterile subsoil in small scale experiments, but this is not altogether practicable when considered on a large scale. Excessive moisture and shade in the seed bed should be avoided. Seeds should not be sown any thicker than necessary to secure a good stand, for a crowded stand makes it easier for the damping-off fungi to spread from one plant to another. Sowing in summer or late fall has resulted in decreased losses at some nurseries and is worthy of trial.

Soil disinfection, however, has proved the best method of combating the disease. Sulphuric acid, copper sulphate, zinc chloride and formaldehyde have given better results than a large number of other chemicals used, in experiments carried on in twenty-one different localities.

It is only possible to learn by trial just which chemical agent will best control damping-off in any given locality or on a given soil. At most nurseries sulfuric acid has given the best results. Treatment with this acid not only reduces loss from damping-off, but increases germination. The number of seedlings secured in the treated beds has ranged from one and one-quarter to ten or even twenty times that secured in adjoining untreated beds. One of the most desirable features of the acid treatment is the reduction in the number of weeds. The saving in the cost of weeding has at one Nebraska nursery more than paid for the cost of the acid treatment. The reduction in the weeds and the stimulation given by the acid treatment has at a Kansas nursery resulted in jack pine seedlings three times the height of seedlings grown in untreated beds.

Sulfuric acid is applied to the seed beds in a solution of water just after the seed is sown and covered. From ⅛ to ⅜ fluid ounce of acid per square foot is dissolved in from 1½ to 2 pints of water, and applied with a paraffin-coated sprinkler. Care is necessary in the use of the solution to keep it from the clothes and shoes, because of its corrosive action. Chemical injury may result in some cases to the roots, and it then becomes necessary to sprinkle the beds during germination once or twice daily. When the seedlings have their roots down three-quarters of an inch, there is little danger from chemical injury. The Department of Agriculture has a special bulletin dealing with "Injury by Disinfectants to Seeds and Roots in Sandy Soils." Individual conditions at each nursery must decide how much acid is necessary and whether special watering is needed to prevent acid injury to the roots.

Where there is considerable quantity of carbonates in the soil, their presence being indicated by an effervescence when a strong acid solution is applied, acid is not likely to be effective as a disinfectant. Copper sulphate and zinc chloride have been found good substitutes. The range of use of these chemicals which have proved successful in controlling damping-off is for copper sulphate ⅛ to 5-16 ounce per square foot, and for zinc chloride ¼ to ⅝ ounce per square foot. These should be dissolved in water as for the acid treatment. Both the copper and zinc salts have at times been found injuring the roots of seedlings. Special watering will prevent the injury.

Formaldehyde has been found injurious to seeds and must therefore be applied before seed sowing. At a Minnesota nursery best results were secured by applying 9 days before sowing a formaldehyde solution of from ½ to ¾ ounce per square foot, in from 1½ to 2 pints of water. It is necessary to cover the seed bed immediately after applying the solution in order to secure thorough penetration, and to prevent the too rapid evaporation of the gas.

Heat sterilization of the seed bed has been of value at some nurseries, though this method of treatment is more expensive than the acid teatment. Of all the treatments acid should be given the first trial, since it has proved more successful on more soils than any of the other chemicals used.

If any nurserymen contemplate the use of soil disinfectants they should write to the Department of Agriculture, for specific advice adapted to their particular location, and keep the department informed of their experience.

NOTICE OF PROPOSED QUARANTINE ON ACCOUNT OF THE WHITE PINE BLISTER RUST *(Peridermium strobi Kleb.)*.

Notice is hereby given that the Secretary of Agriculture has determined that there exists in Europe, Asia, the Dominion of Canada and Newfoundland a dangerous pine disease known as the white pine blister rust (Peridermium strobi Kleb.), new to and not heretofore widely prevalent or distributed within or throughout the United States, and that it may be necessary to forbid the importation into the United States of all species and varieties of the genera *Ribes* and *Grossularia*, known to be carriers of this dangerous pine disease.

In accordance with the provisions of Section 7 of the Plant Quarantine Act of August 20, 1912 (37 Stat. L., 315), a public hearing will be held at the Department of Agriculture, Washington, D. C., at ten o'clock A. M., on February 4, 1916, in order to determine whether or not importations of all or certain species and varieties of the

genera *Ribes* and *Grossularia* from the countries above specified, should be forbidden. Any person interested in the proposed quarantine will be heard, either in person or by attorney.

The genus Ribes includes gooseberries and both flowering and fruiting currants. The genus Grossularia is synonymous with Ribes.—Editor.

NOTICE OF PROPOSED QUARANTINE ON ACCOUNT OF THE WHITE PINE BLISTER RUST *(Peridermium strobi Kleb.)*

The Secretary of Agriculture has information that a dangerous pine disease known as the white pine blister rust (*Peridermium strobi* Kleb.) not heretofore widely prevalent or distributed within and throughout the United States, exists in the States of New Hampshire, Vermont, Massachusetts, Connecticut, New York, and Pennsylvania, on account of which it apears to be necessary to quarantine said states, or such portions thereof as may be found to be essential, in accordance with Section 8 of the Plant Quarantine Act of August 20, 1912 (37 Stat. L., 315), to prevent the movement from said states to other states and territories of five-leafed pine nursery sock and black currant nursery stock.

A public hearing will be held at the Department of Agriculture, Washington, D. C., at ten o'clock A. M., on February 4, 1916, in order that any person interested in the proposed quarantine may be heard either in person or by attorney.

NOTICE OF PROPOSED QUARANTINE ON ACCOUNT OF THE WHITE PINE BLISTER RUST *(Peridermium strobi Kleb.)*

The Secretary of Agriculture deems it necessary, in order to effectively prevent the introduction into the United States of the white pine blister rust (*Peridermium strobi* Kleb.), to extend the provisions of Notice of Quarantine No. 7, issued May 21, 1913, to forbid the importation of all five-leafed pines from the Dominion of Canada and Newfoundland.

In compliance with Section 7, of the Plant Quarantine Act of August 20, 1912, (37 Stat. L., 315) a public hearing will be held at the Department of Agriculture, Washington, D. C., at ten o'clock A. M., on February 4, 1916, in order that all persons interested in the importation of five-leafed pines from the countries specified may be heard, either in person or by attorney.

THE PENNSYLVANIA WORKMEN'S COMPENSATION LAW

This law went into effect January first. There appeared to be some doubt as to whether a nurseryman would be exempt from the operation of this law in view of the fact that the Legislature passed a supplement to the act, which reads:—

> "That nothing contained in any article or any section of an act, entitled the Workmen's Compensation Act of 1915, shall apply to or in any way affect any person who, at the time of injury, is engaged in domestic service or agriculture."

The question was laid before the Workmen's Compensation Board at Harrisburg, and they have ruled as follows:—

> "Those engaged in the business of fruit growing, poultry raising and horticulture as a business and not merely incidental to general farming, come under the Compensation Act and are not exempted by Act 343 of June 3, 1915 which is a supplement to the general Compensation Act."

This would make it appear that a Nurseryman is not an agriculturist. What is he? Will some nurseryman please answer.

WHAT SHOULD A MAN SPEND ON HIS YARD?

What should a man spend on his yard is really a question that needs answering, not only to cheer the heart of the nurseryman, but for the benefit of the man who has a home with a yard and wants to get the full value from his investment.

An investigation in some localities of present conditions, by a wag, would result in the answer, not a "durned" cent if he can help it, but in other localities it would be 10 or 15 per cent. the cost of the house.

Of course there can be no rule about the matter as there are too many governing conditions.

Very often the home builder's pocketbook is the chief dictator and curbs his inclination, but the grounds of a house costing $10,000 up, in a suburban locality certainly ought to have definite consideration in the estimates.

Even when provided for, too often the house costs more than the original estimate and the grounds suffer in consequence.

That the planting of the grounds does not receive enough consideration is often very evident. The buildings are often splendid in design and material and the workmanship of the best, yet the grounds are neither properly graded nor planted, the latter often consisting of a few common trees put in where they will do the most harm from an artistic point of view.

Yet the interiors are finished and furnished with the very best. The rug of one room costing as much as it would take to properly plant the grounds.

When one comes to think about it, this is not right from any point of view, as the occupants spend as much time on the outside on the porches as they do waking hours inside and one would think beauty would be as much appreciated outside as in. The work of the finest artist or master workman cannot compare for a moment with the beauty of a well grown plant.

In localities at a distance from nurseries and large cities the question of skilled labor to look after the grounds is the governing factor, the owner being quite willing to spend if he was assured of being able to have them cared for after laying out.

The California Nursery Company, Inc., Niles, California, has issued a very large and comprehensive catalogue of the plants they carry. The book, for so it deserves to be called, is really a very good cyclopedia of the plants in cultivation on the Pacific coast. There are no prices, no selling talk and very little practical information. It is beautifully gotten up, terse descriptions and fully illustrated. It contains 125 pages, and lists both ornamental and fruit trees.

PYRAMIDAL TREES

SEVERAL of the species of trees of the northern hemisphere have produced individuals with erect growing branches which give them an abnormal fastigiate habit. Such trees are interesting in illustrating the variation in habit of trees, and several of them are valuable when used with discretion to produce certain effects in decorative planting. The best known of these trees is the Lombardy Poplar, a form of the Black Poplar of Europe (*Populus nigra* var. *italica*). Some authors have supposed that this tree originated in one of the countries of western Asia, but it is now more generally believed that it sprang up in northern Italy early in the eighteenth century. The trees are all males and have all been propagated from cuttings; and it is not improbable that all of these trees now scattered over a large part of the world are descended from a single individual. It is a very hardy, fast-growing tree, and is able to adapt itself to very different climatic conditions. Nowhere perhaps can such fine specimens be seen as are now growing in the central valley of Chile, and it is equally at home in all parts of North America. The Lombardy Poplar is a great favorite with some members of the younger school of American landscape gardeners, but unfortunately in this part of the country it often suffers severely from the attacks of a borer so that it is not probable that large trees will ever become too common here. There is also a fastigiate form of the Silver Poplar of Europe and western Asia (*Populus alba,* var. *pyramidalis,* but better known as *P. Bolleana*). This tree is a native of central Asia but has become common in the United States and Europe in the forty years since it was first sent to Germany. It is as fastigiate in habit as the Lombardy Poplar, and has the advantage over it in the greater variation, shape and color of the leaves. There is a Poplar with pale nearly white bark which resembles the Lombardy Poplar in habit and foliage and which has been called *Populus thevestina.* It occurs in Servia, the Crimea and Algeria. The young plants in the Arboretum are hardy and are growing well. One of the narrowest and most remarkable of all these trees is the fastigiate form of the Sugar Maple, *Acer saccharum,* var. *monumentale,* which was found in 1885 in a cemetery in Newton, Massachusetts. There is a good specimen of this interesting tree established in the Maple Collection. It may prove valuable for planting by the sides of narrow roads. There is a form of the Red Maple (*Acer rubrum,* var. *columnare*) in the collection. This is rather broader than the fastigiate Sugar Maple but is a good addition to the list of these plants. The graft from which the Arboretum specimen was raised was obtained in 1889 from the Parsons Nursery on Long Island. Beyond this nothing is known of the origin of this tree. There is also a pyramidal form of the Silver Maple (*Acer saccharinum* var. *pyramidale*). This originated in a European nursery and there are only small specimens in the Arboretum. The only Old World Maple which has produced one of these sports is the Norway Maple (*Acer platanoides,* var. *columnare*). This tree is established in the Arboretum collection and is a broader tree than the American fastigiate Maples. The fastigiate Tulip tree (*Liriodendron Tulipifera,* var. *pyramidale*) is one of the handsomest of these trees; it originated in the nursery of Simon Louis near Metz in Alsace and has been growing in the Arboretum since 1888. There is a good specimen with the other Tulip-trees on the right-hand side of the Meadow Road. The Linden genus appears to have produced but one of these trees, the var. *pyramidalis* of the European *Tilia platyphyllos.* This tree tapers from a broad base to a pointed apex and is pyramidal rather than fastigiate in outline. The fastigiate form of one of the Oaks of western Europe (*Quercus pedunculata,* var. *fastigiata*) sometimes grows in Europe to a large size; it is hardy in this country and grows rapidly, but, like the other European Oaks, it is short-lived here and rarely lives more than thirty or forty years. One of the most interesting of all the fastigiate trees is a European Beech growing at Dawyck, Mr. F. R. S. Balfour's estate in Peebleshire, Scotland. It is a tall and evidently an old tree to which the name of *Fagus sylvatica,* var. *Dawyck* has been given. This tree has recently been propagated by nurserymen and there is a small plant in the Arboretum with the other Beeches near the South Street entrance. There are two fastigiate forms of the European Hornbeam in the Arboretum collection (*Carpinus Betulus,* var. *pyramidalis* and var. *globosa*). The first is pyramidal rather than fastigiate, and the second, in spite of its name, is a dwarf, very compact, fastigiate plant. They are in the Hornbeam Collection on the right-hand side of the Meadow Road opposite the Oaks. There is only one fastigiate Birch, the var. *fastigiata* of the European *Betula pendula* or *verrucosa.* This is distinctly fastigiate in habit, with a narrow head of erect branches. A specimen of this tree may be seen on the Bussey Hill Road with the other Birches. One of the narrowest of all these trees is the fastigiate form of the Scotch Elm (*Ulmus glabra,* var. *fastigiata*) which is sometimes called in England the Exeter Elm, as it was raised in a nursery in Exeter about ninety years ago. This tree has little beauty. More beautiful and interesting is a geographical form of the European *Ulmus nitens* (var. *stricta*). This is the common Elm in Cornwall and some parts of Devonshire, and is usually called the Cornish Elm. It is a tree sometimes eighty feet tall with a trunk occasionally five feet in diameter, with short ascending upper branches and lower branches curving upward. A tree which is often considered now a form of the Cornish Elm (var. *Wheatleyi*) has a similar habit and is usually called the Guernsey Elm. It sometimes appears in nursery catalogues under the name of *Ulmus campestris monumentalis.* The European *Crataegus monogyna* has produced vars. *stricta* and *monumentalis.* The former is a tree with a broad head of erect branches, and can be seen in the old Crataegus Collection next to the parkway wall. The latter, which is a narrower and strictly pyramidal plant, is new in the Arboretum. A fastigiate form of the European Horsechestnut (*Aesculus Hippocastanum,* var. *pyramidalis*) has appeared in a European nursery but is not yet in the Arboretum.

FASTIGIATE CONIFERS. In the pinetum are young trees of the White Pine (*Pinus Strobus,* var. *fastigiata*) with

ereet branches which give the trees a peculiar and distinct appearanee. They were raised from grafts taken from a tree which was growing a few years ago near Stamford, Connecticut. The Scotch Pine (*Pinus sylvestris*), which shows a strong tendency to seminal and geographical variation, has also produeed a fastigiate form (var. *pyramidalis*). The so-called Swedish Juniper is a narrow, dwarf pyramidal form of the eommon Juniper (*Juniperis communis,* var. *suecica*). This little Juniper is not very hardy in this part of the country but is often planted in the middle states. The handsomest pyramidal coniferous plant, however, in the Arboretum is a form of *Thuya occidentalis* (var. *pyramidalis*) raised sometime before 1885 by Robert Douglas in his nursery at Waukegan, Illinois. It is a tall narrow plant suited to replaee although mueh smaller of eourse, the fastigiate Cypress whieh plays such a part in the deeoration of the gardens of southern Europe. This Arbor Vitae is sold in some Ameriean nurseries as *Thuya occidenlalis pyramidalis Douglasii.* The eommon Spruce (*Picea Abies*) has produeed many abnormal seminal forms and among them are at least two with ereet braneh es (var. *columnaris* and var. *pyramidalis*). A few individuals of these varieties were found many years ago in European forests and the eultivated plants have probably been propagated from these wild plants. Less important are two dwarf pyramidal forms of the European Fir (*Abies Picea,* var. columnaris and var. *pyramidalis.)*. The Lawson Cypress from the Paeifie Coast *(Chamaecyparis Lawsoniana)* is another tree whieh shows great variation in its seedling offspring. Among them is a distinetly pyramidal form whieh appeared in an English nursery many years ago and is known as *Cupressus Lawsoniana erecta viridis.* Like all the forms of the Lawson Cypress it is not hardy in the neighborhood of Boston. The so-ealled Irish Yew, a pyramidal form of the European Yew *(Taxus baccata,* var. *fastigiata),* of whieh there is a yellow-leaved variety, is a popular garden plant in all the countries where is is hardy. Unfortunately this interesting tree is not able to support the New England elimate. This is true of the ereet garden form of the Japanese *Cephalotaxus* (*pedunculata,* var. *fastigiala.*

Of these twenty-eight plants with abnormally ereet growing braneh es five in two genera are North Ameriean, one only is Asiatie, and twenty-two are European, the Cornish Elm, whieh is not an abnormal tree but a geographieal variety, being omitted. The predominenee of abnormal forms among European trees is due, no doubt, to the faet that European trees have been raised artifieially from seeds for a longer time and in greater numbers than those from other countries, and that European cultivators of trees have been keener than others to propagate and deteet plants of abnormal habit and foliage. It is less easy to explain the absence of fastigiate trees from such largely cultivated genera as Fraxinus, Catalpa, Prunus, Magnolia, Salix and Tsuga. Of our eommon Hemlock in this last genus there are a number of dwarf forms and forms with abnormal foliage, but among them none has yet appeared with ereet growing braneh es.

Bulletin, Arnold Arboretum.

ANNOUNCEMENT

The Arbitration Committee of the American Association of Nurserymen has been properly organized and is ready for business.

While we sincerely hope that none of our members will have any differences that will need our attention, however should differences arise if each party interested will submit a complete detailed statement of their case and all the eorrespondence pertaining thereto, your committee will do all in their power to arrive at a fair and equitable settlement.

Members: W. C. Reed, Vineennes, Ind.; C. A. Marshall, Arlington, Neb.; L. A. Berckmans, Augusta, Ga.; James Pitkin, Newark, N. Y.; A. E. Robinson, Lexington, Mass.

Signed W. C. Reed, *Chairman Arbitration Committee.*

THE IMPORT SITUATION

By McHutchison & Co.

We do not remember when there were better prospeets for a large and healthy spring business. The demand for stoek is enormous, the country is in a very prosperous eondition, money is plentiful and eheap and the only problem is one of transportation—lack of steamer spaee.

Shipments from Holland and Franee are only slightly delayed and the freight rates are still reasonable. For English shipments it is difficult to get space and the freight rates are excessive. From Germany no shipments ean eome. From Belgium shipments will eome as usual via Rotterdam. From Australia, Madagasear, Japan and far distant plaees shipping spaee is almost unprocurable.

Export freight is piled up in ears 30 miles out of New York in all direetions, yet more ships are entering and leaving port than ever before. There is a tremendous demand for all kinds of merchandise for export, but not sufficient steamers to carry it.

Fortunately there is no great fear of laek of steamers to bring our imports from Europe, as the steamers must eome here to get our exports—largely munitions.

THE ANNUAL MEETING OF THE PENNSYLVANIA NURSERYMEN'S ASSOCIATION

The annual meeting of the Pennsylvania Nurserymen's Assoeiation was held at the Hotel Berkshire, Reading, Pa., January 19th,

The meeting was a very representative one, the greater proportion of the members being present.

The meeting was elosed to all but members of the association.

Subjeets relative to nursery questions, and legislative matters, and particularly the new State Workmen's Compensation Law, which took effect January 1st, were discussed at length.

The following officers were elected: President, William Warner Harper, Chestnut Hill, Pa.; Vice President, Edward W. Thomas, King of Prussia, Pa.; Treasurer, Thomas Rakestraw, Kennett Square, Pa.; Secretary, Henry T. Moon, Morrisville, Pa. Executive Committee: Thomas B. Meehan, Dresher, Pa.; Wilmer W. Hoopes, West Chester, Pa.; James Krewson, Cheltenham, Pa.

The time and place of the next annual meeting was left in the hands of the Executive Committee.

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Official Journal of American Association of Nurserymen

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900

SUBSCRIPTION RATES

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Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested by the Business Manager, Rochester, N. Y.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

Entered in the Post Office at Rochester, N. Y., as second-class matter.

Rochester, N. Y., February, 1916.

SELECTION MEANS PROFIT

In a bulletin from the Office of Information U. S. D. of A., the Assistant Secretary of Agriculture makes the following statement.

"Catch but one bad ear in testing seed corn and you save a good day's wages. Find the average number of bad ones and you save a week's wages in a winter's afternoon."

This is a statement that can be applied with even greater force to the nurseryman in his selection of seed for sowing, wood for cuttings or plants for lining out or planting out in the nursery rows.

While the farmer risks one year's labor in raising a crop of corn, the nurseryman risks several or perhaps eight or ten, as many trees and plants take that long to bring into marketable condition and the loss is correspondingly great.

In raising a crop of Norway Maples from seed it is well worth while to be careful of the type of tree from which the seed is gathered, as every practical man knows from observation there is great variation and the seedlings will more or less follow the type of the parent, and with each successive transplanting a careful grading, throwing out crooks and culls always pays. It is better to throw away a tree of ½-inch caliper than to grow it until it is three inches or so and then throw it away. When we can grow a block of trees 100 per cent. good there will be more profit and satisfaction and so we must only plant those that give the best promise of success.

It can be safely stated that all progress and improvement in plants is by selection, and if this selection was carefully and intelligently carried out in all plantings, quality and profit would soon be soaring.

Every propagator knows the value of good stock plants from which to take the wood for cuttings, yet how often is wood taken without thought as to type of plant or even quality of wood and by and by the nursery gets filled with a poor grade of plants in which there is neither pleasure nor profit in growing.

The real source of profit in plant growing is found in using our brains early in the game.

It is better to raise just sufficient all good than twice the number of which fifty per cent. are poor.

Save the labor and wages at the beginning by careful selection.

ENHANCE THE BEAUTY OF YOUR TOWN

A ladies civic association at Richmond, Virginia, just adopted a scheme that deserves emulation in other localities and with other plants.

They have adopted a day on which to plant dogwoods, the aim being to have the locality become famous for its dogwoods as they believe it will much enhance the beauty of the place.

The ladies are right, one need not draw on the imagination very much to be convinced that a suburb or residential section of any city would soon become famous with flowering dogwoods in every yard, and nurserymen should do everything in their power to encourage such movements. In fact the idea has enormous possibilities.

Why should not a New England town become famous for its lilacs or a southern city for its Crepe Myrtles or Magnolias.

Washington, D. C. will in time be famous for its street trees as well as its public buildings.

Charlestown, S. C., is already known as the place where you can see Azaleas to perfection, due to the efforts of one man.

The main thing is to decide on the plant that is adapted to the locality and worth while and then encourage the planting of it in large quantities.

THE PROPOSED QUARANTINE ON RIBES

On a separate page we publish notice of a proposed quarantine on Ribes on account of the White Pine Blister Rust. It is proposed to quarantine against all the varieties and species being imported into this country from abroad and Canada, but in the case of the state quarantine only the Black Currant is mentioned specifically as being the carrier of the disease.

The quarantining of those localities where small fruits are extensively grown in the nurseries is going to seriously affect the business and the nursery interests should not fail to be on hand before the Federal Horticultural Board at its hearing on February 4th to see that their interests are looked after.

According to information from the U. S. D. of A.

"The white pine blister rust, like citrus blight and blister blight, is an imported disease which was introduced into this country on nursery stock before the passage of the Federal Plant Quarantine Law. Ninety per cent. of the infections now in America came from a single German nursery. The disease, it is said, can be controlled in the Eastern States, where it now exists, but if it finds its way into the Western forests there is no likelihood that its spread can be successfully checked. At the present time these forests are free from blister rust and it can only be introduced into them through nur-

sery stock of five-leaved pines or currants. A quarantine against the relatively limited traffic in this stock is, therefore, believed to be a necessary precaution.

The importance of protecting the white pine forests from the blister rust may be inferred from the fact that in New England, New York and Pennsylvania alone there are still 15 billion feet of mature white pine valued at not less than $75,000,000, and in the Lake States, 12 billion feet valued at $96,000,000.

In addition there is the vast white and sugar pine forests of the west to be considered as well as the immense areas suitable for planting which a spread of the disease would prevent."

Yet in spite of these large interests it is only just to the nurserymen, there should be no doubt of the efficacy of the proposed quarantine before it is put into effect.

That the genus Ribes carries the disease is not sufficient. It should be established beyond question, there is disease in the nurseries to be carried, also that the birds and wind and other vehicles do not carry the disease.

A quarantine is useless unless effective.

ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF OFFICIAL HORTICULTURAL INSPECTORS

The fourteenth annual meeting of the Society of Horticultural Inspectors was held in Columbus, Ohio, December 28th and 29th, and was called to order by the Chairman, W. E. Rumsey.

PROGRAM

Tuesday, December 28, 1915, 8.00 P. M.

1. Address of the Chairman: "Control of the Cedar Rust in West Virginia," by Professor W. E. Rumsey, Morgantown, W. Va.
2. "Foreign Pests Recently Established in New Jersey," by Harry B. Weiss, New Brunswick, N. J.
3. "Imported Insect Pests Collected on Imported Nursery Stock in 1915," by E. R. Sasscer, Washington, D. C.
4. "The Uniform Horticultural Inspection Law," by J. G. Sanders, Madison, Wis.
5. "Report of the Legislative Committee of the National Nurserymen's Association," by J. H. Dayton, Painesville, Ohio.

Wednesday, December 29, 1915, 10.00 A. M.

6. "Remarks on Inspection Facilities in the District of Columbia," by E. R. Sasscer, Washington, D. C. Illustrated.
7. "Vacuum Fumigation and Its Application to the Control of Insects Affecting Plants and Plant Products," by E. R. Sasscer, Washington, D. C. Illustrated.
8. "The Betterment of Pathological Inspection," by R. Kent Beattie, Washington, D. C.
9. "Nursery Inspection in Florida," by F. M. O'Byrne, Gainesville, Fla.
10. "Co-operation in the Establishment of State Quarantines," by J. Edward Taylor, Salt Lake City, Utah.
11. "The Ohio Inspection System," by N. E. Shaw, Columbus, Ohio. Illustrated.

Mr. J. H. Dayton, of the Storrs & Harrison Co., Painesville, Ohio, was present by invitation, as a member of the Legislative Committee of the American Association of Nurserymen. He reported that his association had approved and accepted the "Uniform Inspection" Bill, at the annual meeting held in Detroit last June, and spoke of his gratification of the close relations and co-operation of the two bodies which had been brought about through the work of the joint committees, which had prepared the bill and hoped and believed that this friendly feeling would continue to exist many years.

Prof. W. J. Schoene, Blacksburg, Virginia, was elected Chairman for 1916, and Prof. J. G. Sanders, Madison, Wisconsin, was re-elected Secretary.

In his address Prof. Rumsey dwelt at some length on the losses occasioned by the "cedar rust" on the apple crop in West Virginia and outlined the steps taken for controlling the situation.

The destruction of cedars over a large area was one of the precautions taken. It has been decided that the clearance of such trees within a mile of commercial orchards would prevent the spread of the disease to the orchard.

Mr. Weiss' paper spoke of the many species of insects which have been recently introduced and become established in New Jersey. In commenting on the paper Dr. Headlee recommended drastic action to prevent repetition of these conditions and offered the following resolution, which was adopted, and forwarded to the Federal Horticultural Board.

RESOLUTION:—

> "That it is the sense of this body that the federal quarantine be strengthened and that an absolute quarantine be placed on all plants imported with soil about the roots, except such as are introduced by the U. S. Department of Agriculture for experiment and those to be held in quarantine for a reasonable period."

In a paper read by Mr. Sasscer he called attention to the increased amount of imported nursery stock, and stated that he had found thereon a number of dangerous insects. It was believed by Mr. Sasscer that the "European earwig" and the "European mole cricket" which have become established in some of the eastern states, had been introduced in soil which came about the roots of imported plants.

Much interest was created by Mr. Sasscer's paper on vacuum fumigation. He stated that important results had been secured in fumigating tightly packed bales of cotton with cyanide gas by this process. (Readers of the National Nurseryman will be greatly interested in later details of this method of fumigation as experiments are now being made in fumigating nursery stock with a view of adopting it for the fumigation of all foreign nursery stock at the port of entry—Editor).

Mr. Shaw's address which was illustrated with a series of very fine lantern slides, gave in detail, the system of inspection of nurseries in Ohio, and the method used in fumigating infested stock. Pictures of a number of styles of fumigation houses were shown.

The United Forestry Company, Niverville, Columbia, County, N. Y., use more or less fruit and ornamental stock, and would be glad if nurserymen having same to offer would send their catalogues and price lists.

HORTICULTURAL SPORTS.

By Warren H. Manning, Landscape Designer

THE bizarre, garish, unconventional individuals that are referred to among humans as "sports" have their counterparts in the plant world. One may be introduced to you by a friend, the other by a nursery catalogue. You will find that some have a thin veneer of color or an eccentricity of form or action that may be very amusing, but that have no real merit or permanent value; while on the other hand there are some sports that have such substantial and worthy qualities that they find a permanent place of honor among your friends, or in your gardens and landscapes.

It is to certain of these plant sports that we shall hereafter refer, such as the purple, golden, cut-leaved, pyramidal, table-form, table-topped, and weeping forms that have developed among species of Beech, Birch, Maple, Elm, Catalpa, Elder, Hazel, Dogwood, Pine, Hemlock, Spruce and other groups. These have become pretty well established in nurseries, gardens and lawns, by reason of their vigor, health, distinctive foliage or habit of growth.

They have been mostly used, however, as specimens, or to give brilliant spots of summer color in the conventional patchwork quilt shrub plantation, not as elements of broad landscapes.

Before considering their use in landscapes we should recognize that such sports are not always fugitive accidental freaks that can be reproduced only by grafting or by cuttings. It has been found, for example, that the seedlings of a conspicuous specimen plant of Wier's Cut-leaf Maple, Purple Beech, or Golden Spirea will produce so large a percentage of cut-leaved and purple or golden offspring, that the progeny of an old seedling plant would be likely to establish in time a wide-spreading distinctive group, in which there will be much foliage like the parent, and color transitions due to variations in seedlings, and those would gradually merge the group into the surrounding trees. The purple Barberry has already escaped from cultivation, and made these distinctive groups in open pastures.

Much of our broad landscape beauty comes from the deep shadows and the high lights of hill and valley, and of foliage as seen under various atmospheric moods. Individual trees count but little in distant landscapes. It is the mass that counts effectively in foliage color and in outline, as shown in the contrasts between the spired cone-bearing evergreens and the rounded outline of deciduous foliage, or the towering Lombardy Poplars; or again between the dark and solid masses of the Burr Oak foliage, the flickering and glinting sparkle of the Aspen Poplar or the Silver Poplar, or the soft fleecy grayish foliage of the Willows.

The really worthy sports of the vegetable world may well have a place that has never been given them in broad landscapes that are seen from a distance. The deep shadows in the valley, or at the ends of a long vista might be given greater emphasis by the use of such long-lived vigorous forms as the Purple Beech or Purple Maple, that are used in principal masses and outline groups with a suitable backing, flanking, and interlacing of dark green foliage that would merge the purple into the surrounding landscape, to give the deeper shadows and not be unpleasantly obtrusive.

At other points the high lights of the landscape in glades through vistas or under arching trees may be given greater emphasis and brilliancy by the use of such plants as the Golden Elder and Spirea, or the Golden Poplar and Hop-tree.

The cut-leaved form of the Birch, Beech or Maple would give a distince variation in the texture of the foliage, as seen from a distance, if a sufficient quantity were used to count effectively, and they could be very properly associated with the type.

There are many places where it would be very desirable to establish a ground cover that will not grow high enough to interfere with the view, that will have good, healthy foliage, and that can be more readily kept in restraint than can be most vines. Why should we not use the weeping forms of the Mulberry, Mountain Ash, Elm, Beech, Dogwood, Pine and Spruce for such a purpose? Some of these forms, such as the Weeping Mulberry and Camperdown Elm, are trailing sports of upright trees, with little tendency to form a leader. They are usually grafted on high stems to make them suggest the umbrella-like form.

Other varieties, like the Weeping Beech and the Norway Spruce have a distinct tendency to make a leader. Such forms, grown on their own roots, or grafted so low that the graft can be buried in the ground, to form roots above the union, would have a tendency to scramble over the surface. As such plants as the Mountain Ash and the Mulberry have fruit that the birds like, they would help to form the ideal bird cover. One can conceive of an exceedingly interesting and attractive phase of landscape so treated, for there is enough variation to give high and low foliage masses.

There are other places where the cushion-shaped trees, such as the Dwarf Catalpa, the several dense forms of the Norway Spruce and American Arbor-vitae, could be massed together to form a distinctive landscape treatment of this type.

Is there any more reason why the brilliant crimson coloring of the Schwedler's Maple should not be used to give color effects in a large way in the spring, as we now secure color effects from the Maples, Tupelos, Sumacs and Birches in the fall? These are all interesting propositions for those who have the courage to break away from the conventional use of material; but they must recognize the danger of such suggestions, because it will be very easy to produce a garish and disordered effect in landscape, just as is now produced in so many gardens and lawns where spots of such material are used.

Prices on burlap have nearly doubled in the last few months which is adding much to the nurseryman's packing costs.

The main supply of jute from which burlap is made comes from India, and owing to the war there is considerable difficulty in getting cargoes from India. There is a ship on the way to the United States at the present time with 20,000,000 yards of burlap as part of her cargo if she has not been torpedoed.

Immense quantities of burlap bags are being used by the armies in Europe for building fortifications which is no doubt responsible for the added cost.

Obituary.

MAJOR FRANK HOLSINGER.

In the death of Major Frank Holsinger, at Rosedale, Kansas, January 2nd, 1916, the middle west loses one of its most prominent horticulturists, a man of sterling integrity, and one who has spent his life mainly in the service of others.

Major Holsinger was born in Bedford County, Pa., April 4th, 1836, where he lived until at the age of nineteen, when he went to Ohio, there securing his first employment away from home, a carpenter's assistant at a salary of $4.00 per month. From Ohio, he went to Illinois, thence to Kansas in 1857, taking up a claim in Osage County, Kansas, where he went through the border troubles, and being an ardent "free-stater," frequently met John Brown, Jim Lane and others of the Free State men.

When the Civil War broke out, he returned to Pennsylvania and enlisted in the Eighth Pennsylvania Reserves and later was commissioned Captain in the 19th U. S. Colored Troops, having raised a company of men on the east shore of Maryland. He was severely wounded at Bermuda Hundred, and on recovery again went to the front, and was brevetted Major for "Gallantry in Action." At the close of Civil War, he was stationed in Texas, as an agent in the "Freedmen's Bureau" and was finally discharged in January, 1867.

He was married in Maryland, in 1867, and the following year came to Kansas City, soon after purchasing 160 acres in Wyandotte County, Kansas, and since that has been a resident of that county. He cleared the ground, and almost immediately began fruit-growing. With a few others, he organized the Missouri Valley Horticultural Society, and has ever been one of the most active and helpful members of same. Believing always in fruit-growing as a business, he with several other growers in the vicinity of Kansas City, organized the Olden Fruit Company, and planted immense orchards at Olden, Mo., he being one of the charter members of this company. In later years, Major Holsinger has served as Treasurer and President of the Kansas State Horticultural Society, and though in recent years he has not actively engaged in horticultural pursuits, he has maintained his connection with the different societies in which he had formerly been so actively a member. His two sons, Gerald L. Holsinger and George W. Holsinger, continue the nursery business at Rosedale, Kansas.

Major Holsinger was highly esteemed by all who had the privilege of knowing him, and his passing away is a severe loss to nursery fraternity.

MISS H. R. WILLIAMS

Miss H. R. Williams, Danville, N. Y., whose death occurred at her home on Main street, December 4th, 1915, after an illness covering more than a period of three years. She was born and had always lived here, and was the oldest daughter of the late Samuel P. Williams, one of the oldest nurserymen in Dansville. Miss Williams took care of her father's business for several years, he having had to give up on account of failing health, and after that had conducted very successfully a business of her own, until a few years ago, when she merged interests with the Stark Bros., of Missouri, and had since then had the management of their office at Dansville. Miss Williams was a woman of excellent business ability, and had an extensive acquaintance. She is survived by one sister, Miss F. E. Williams, of Dansville.

THE PROPER USE OF EVERGREENS

ALL plants have certain associations or harmonies that should be understood by the planter if he expects to get pleasing results from his planting. Anyone that works among plants and is interested in them, unconsciously absorbs this knowledge and inversely it does not matter how clever an artist he may be if he lacks this intimacy with plants his work will always be deficient.

He must not only know where a plant will look well but also where it is likely to do well and develop true to its nature.

A common illustration of questionable fitness is the use of Norway Spruce in porch beds. This plant is a rapid growing evergreen tree of symmetrical habit. To close group it in a small space where it can only possibly develop on one side is wrong. The same may be said of all the spruces and firs, with perhaps the exception of the dwarf varieties, such as *Picea excelsa, Maxwelli P. excelsa nana compacta* and such like.

It is very common to use the Colorado Blue Spruce in such groupings, presumably to give color, but a good plantsman knows the final results will be poor and show either a lack of knowledge or proper material to carry out his ideas.

How much better for such plantings are the Junipers, Retinisporas and Arbor Vitaes, and even still better are the English Laurel, Yews, Rhododendron, Kalmia *Ilex crenata,* Mahonia, and such like plants that are more or less informal in their habit of growth.

The choice large growing formal evergreens of the Nordman's Fir type look better as solitaires. Landscape gardeners sometimes do group them with good effect, but it is an open question whether several spoilt trees on a lawn are better than one perfect specimen. It is always pretty safe to group trees native to the locality if desired, but unless the landscape scheme is a very pretentious one those of exotic nature should be emphasized as such, and to do this their surroundings should be artificial rather than natural.

Red Cedar, Hemlock, most of the pines and Arbor Vitae may be grouped at will where they have plenty of room to develop, without much danger of a discord.

It is very rare that a mixed planting of evergreens and deciduous shrubs is satisfactory, and it is usually safer and more satisfactory to avoid it.

The planter will find that to know the individual plant well and to plant with the object of having each plant to do its best will produce more satisfactory results than mere group effects, especially on grounds of limited area.

PACIFIC COAST TREES DESIRED FOR WESTERN NORWAY.

THE satisfactory transplanting of trees from America's Pacific Coast to western Norway has become a matter of interest to Stavanger's forestry association. This society has this month combined with a similar society in Bergen, and the new "West Coast Trial Station" has decided to send an expedition to America next spring to bring back more trees.

The American varieties of greatest interest to Stavanger foresters are the Douglas and Sitka pines. In 1892 several of the former were planted in this district, and they have proved a success. In another coast town, about 600 miles north of here, where, however, the climate is similar, both varieties have thriven.

There are at present, it is stated, but two kinds of native coniferous trees—the pine and the fir—that are seen on Norway's western coast. The chief forester of the new association has called attention to the fact that there are 400 varieties of such trees, many of which might prove suited to this West Coast climate. It is mild in winter and cool in summer, and there is much rain. In many ways it resembles the climate of our State of Washington, and it is to that State in particular that the new expedition expects to go.—*Commerce Reports.*

PROPOSED NEW BILLS BEFORE CONGRESS.

The following bills have recently been introduced in Congress and have been referred to the committee on Agriculture:

H. R. No. 372. A Bill

To provide for the inspection of any parcel sent by mail which contains fruit, plants, trees, shrubs, nursery stock, grafts, scions, peach, plum, almond or the pits of other fruits, cotton seed, or vegetables, at the point of delivery in any post office of the United States that requests such inspection, and where the requisite inspectors are provided by the States to perform such service.

H. R. No. 255. A Bill

To establish an agricultural, plant, shrub, fruit and ornamental tree, berry and vegetable experimental station at or near the City of Saint Petersburg, Pinellas County, Florida.

H. R. No. 338. A Bill

To establish an agricultural, plant, shrub, fruit and ornamental tree, berry and vegetable experimental station at or near the city of Plainview, Hale County, in the State of Texas.

H. R. No. 6068. A Bill

To establish an agricultural, plant, shrub, fruit and ornamental tree, berry and vegetable experimental station at or near the City of Colquitt, Miller County, Georgia.

H. R. No. 3586. A Bill

For the prevention and eradication of the citrus canker.

A STANDARD NOMENCLATURE OF ORNAMENTAL NURSERY STOCK.

At the annual convention of the American Association of Nurserymen, held in Detroit, last June, a committee on nomenclature was apointed to confer with a similar committee of the Ornamental Growers' Association, for the purpose of adopting a standard list of names, both botanical and common, of ornamental nursery stock.

This joint committee met in New York City recently and organized by the election of J. Horace McFarland, chairman, and Harlan P. Kelsey, secretary. There were present, J. Horace McFarland, Harlan P. Kelsey, P. L. Atkins, Robert C. Berckmans, Charles J. Maloy and Thomas B. Meehan.

The committee realized at the outset the Herculean task before them, but proceeded to sketch out a plan of action and reach a decision as to the scope and limitations of their work.

It was also decided to invite a similar committee of the Seed Trade Association, the Society of American Florists and the Society of Landscape Architects to join with the Nurserymen's committee in this work.

The joint committee believe that at the forthcoming Nurserymen's Convention to be held in Milwaukee in June, that they will be able to report considerable progress in their work.

THE PROPOSED UNIFORM INSPECTION LAW

Editor National Nurseryman:—

The proposed uniform nursery inspection law as published in September issue of "National Nurseryman" appears to me an unjust bill and intended to favor the large nurseries. One objectionable feature about it is in Section 15, that it requires the certificate of inspection to disclose the acreage inspected. The acreage has nothing to do with infection and infestation of the nursery. Whether the nursery is large or small as long as it is free from injurious insects and diseases, that should be sufficient. It makes no difference to the purchaser of a dozen or a hundred trees whether they are dug from a 1-acre or a 10,000-acre nursery. Therefore this clause is unjust, unwise, and intends to legislate beyond the intent and purpose of inspection. Further, how can an inspector determine the acreage of a nursery without accepting the statement of the nurseryman? Is it proper for an inspector to certify to the acreage of which he has no knowledge except upon information and belief?

Section 8, confers authority on the Board, why not make it to impose duty? If parks, cemeteries, private and public places are subject to inspection, why not make the whole of Northern Minnesota forests that are infested with a certain tamarack insect, to be inspected and ordered under the police powers of the board to be destroyed, including the public lands of the United States.

Section 17, plainly intends to regulate interstate commerce, which the states have no right to do under the United States constitution, which provides that Congress shall have power to regulate commerce between the states.

Section 14 is unwise, because it provides for inspection of nursery stock imported from foreign countries. This may cause trouble for the United States with foreign countries and it may contravene the treaties of the United States with other countries. Therefore, this should be left to Congress alone. Take notice what uneasiness and friction has the legislature of California caused to United States with Japan when they passed laws unfavorable to

Japan, regarding the ownership of real estate by the Japanese. This should be taken seriously into consideration.

My opinion is that all efforts to pass satisfactory uniform state laws are futile, for reasons heretofore stated. Interstate commerce cannot be regulated by state laws, and therefore it was reserved to Congress. Such efforts only show weakness, selfishness and incompetency of its promoters. JOHN P. VIKLA.

Answers to Correspondents

Can anything be done to remedy beginning blight in the trunk of a young chestnut tree? F.

We have not heard of any successful remedy being discovered with which to combat the chestnut-bark disease, except systematic cutting out of all infected trees.

If the trees are young it would certainly be worth while to spray with bordeau as a preventative.

The infection is believed to take place by the medium of spores through wounds or abrasions in the bark, so by spraying with a fungicide it may be possible to destroy the spores before they gain entrance.

Bulletin No. 334, issued by the United States Department of Agriculture, giving directions for Blueberry Culture by Frederick V. Coville should prove of extreme interest to nurserymen. This fruit deserves much more attention from nurserymen than it is getting.

CHINESE DRY-LAND ELM.—Tests of the Chinese dry-land elm *(Ulmus pumila)* carried on in nursery rows at Mandan, N. Dak., have shown this tree to be exceptionally well adapted both to the climatic and soil conditions of this region, and it is therefore believed that this species will become a valuable shelter-belt and ornamental tree for the northern plains region. Much more extensive plantings throughout various areas of this region will be completed by the close of the present season.

JUJUBES.—Previous introductions of jujubes, which were distributed in 1906 and 1907, are beginning to bear fruit in various parts of the country. The trees have withstood temperatures of 22 degrees below zero and appear to be proimising for dooryard culture at least in the loose soils of the Great Plains region. They have grown well in central Texas and Arizona, and wide distributions are being prepared for. The department has already a considerable collection of varieties of this fruit, of which in China there are believed to be hundreds of distinct different sorts.—*Bureau of Plant Industry.*

THE FRUIT STOCK SITUATION

By F. W. Watson & Co.

Early in the season it looked as if there was going to be a small surplus of apple seedlings left this spring—but the prospect of a short seed crop and consequently higher prices for stocks for next season, also higher prices for French stocks being asked for next season—seems to have stimulated the late trade to an extent that will clean up all grades of apple seedlings.

One of the largest French seed houses has notified its customers that it can supply only 50 per cent. of the seed ordered. Another house reports the quantity and quality doubtful.

Japan pear seed is plentiful and the prospects now are for a larger plant than usual. French pear seed is scarce.

All imported stocks will be higher next season owing to the limited plant to be made this spring.

STARK BROS. NURSERIES AND ORCHARDS COMPANY'S CATALOGUE

Stark Bros. Nurseries and Orchards Company have celebrated their one hundredth birthday by issuing a very original and unusual catalogue done in two colors. On the front cover is a fine four color, life size reproduction of Stark's Delicious apples.

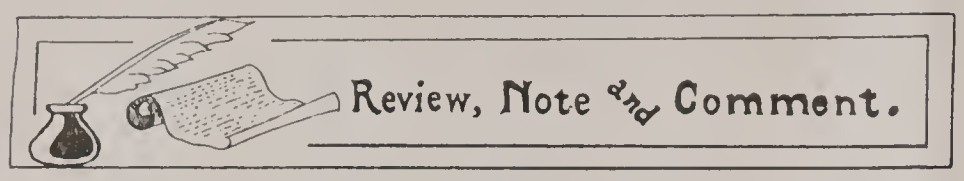
Mr. Stark very generously sent a box of selected fruit about the same time. In comparing the real thing with the picture, the former seems to have the advantage in flavor. Otherwise the picture seems to be as true as art can make it.

The entire book gives one an impression of originality, quality and anxiety to serve. It should prove a good salesman and we sincerely hope it will.

The Commerce Reports state that the New Zealand Fruit Growers market about 150,000 cases of apples annually in South America, and that the New Zealand government has taken steps to see if the amount can be greatly increased. It would seem that if it is possible for the New Zealand to find a market in South America it would be much more possible for the United States.

"THE MONTHLY SUMMARY OF COMMERCE AND FINANCE" FOR OCT. 1915, GIVES THE FOLLOWING REPORT OF IMPORTS OF PLANTS, TREES, SHRUBS AND VINES.

ARTICLES	OCTOBER— 1914 Quantity	OCTOBER— 1914 Value	OCTOBER— 1915 Quantity	OCTOBER— 1915 Value	TEN MONTHS ENDING OCTOBER— 1913 Quantity	TEN MONTHS ENDING OCTOBER— 1913 Value	TEN MONTHS ENDING OCTOBER— 1914 Quantity	TEN MONTHS ENDING OCTOBER— 1914 Value	TEN MONTHS ENDING OCTOBER— 1915 Quantity	TEN MONTHS ENDING OCTOBER— 1915 Value
Plants, trees, shrubs and vines :										
Bulbs, bulbous roots, or corms, cultivated for their flowers or foliage										
.....M.....dut...	25,070	284,008	39,374	407,687	172,298	1,556,597	204,171	1,857,161	214,223	1,908,853
All other { free....	.....	629	.....	5,265	.....	13,984	.....	12,657	.....	22,912
All other { dut....	.....	283,143	.....	176,787	.....	1,139,198	.....	1,145,952	.....	920,239
Total	.....	567,780	.....	589,739	.....	2,709,779	.....	3,015,770	.....	2,852,004



Mr. John C. Chase, of The Benjamin Chase Co., Derry Village, New Hampshire, who has been staying in Coronado, California, has recovered and is now in fit condition to return to the regions of snow and ice.

Information comes from the Department of Agriculture that the propagation and distribution of the two parasites which prey on the Gypsy and Brown Tail Moth is proceeding very successfully, much progress being made in reducing these pests.

Mr. James Lunnemann, representing Kallen & Lunnemann, Boskoop, Holland, arrived in America about January 18th. He will make his headquarters at Maltus & Ware, 14 Stone Street, New York City, from where he expects to call on the nursery trade.

Having received sample copy of your valued publication and read article by Miss E. B. Drake, have decided to subscribe. Enclosed find check for same.

Yours for success,

THE P. O. I. Co., *Penllyn, Pa.*

GLOBE NORWAYS

The Norway Maple is such a common and well-known tree that one does not expect to find anything unusual in the way of variety. The Globe Norway, however, is an extremely desirable variety. When grafted on 2 to 3 foot stems it makes dense round heads that are perfect globes. The growth is extremely short and twiggy and wonderfully uniform, more so than the *Catalpa Bungei*. It takes some years to grow nice specimens, but when developed there is nothing finer for terraces or positions where an extremely formal tree of dwarf habit is required. It really should have more attention from nurserymen, as landscape gardeners would undoubtedly use them more freely if they were available.

BULLETINS OF INTEREST TO NURSERYMEN.

Federal Horticultural Board. No. 21. October, 1915. Pp. 81-86. December 4, 1915. Price 5 cents.

Federal Horticultural Board. No. 22. November, 1915. Pp. 87-90. December 23, 1915. Price, 5 cents.

Insecticide and Fungicide Board. No. 12. Pp. 91-99. December 31, 1915. Price 5 cents.

Willows: Their Growth, Use, and Importance. By George N. Lamb, Forest Examiner. Pp. 52, pls. 10. Contribution from the Forest Service. (Professional Paper.) December 20, 1915. (Department Bulletin 316.) Price, 15 cents.

Contains general information as to the various uses for willows and their propagation.

Directions for Blueberry Culture. 1916. By Frederick V. Coville, Botanist. Pp. 16, pls. 17. Contribution from the Bureau of Plant Industry. (Professional Paper.) December 28, 1915. (Department Bulletin 334.) Price, 15 cents.

Describes soil requirements, methods of planting, and yields and profits.

Inventory of Seeds and Plants Imported by the Office of Foreign Seed and Plant Introduction, During the Period from July 1 to September 30, 1913. Pp. 74, pls. 6. December 23, 1915. (Bureau of Plant Industry Inventory No. 36, Nos. 35667 to 36258.) Price, 15 cents.

Not for miscellaneous distribution.

AMERICAN ASSOCIATION OF NURSERYMEN

President—E. S. Welch, Shenandoah, Iowa.

Vice-President—John Watson, Newark, N. Y.

Treasurer—Peter Youngers, Geneva, Neb.

Secretary—John Hall, Rochester, N. Y.

Executive Committee—President, E. S. Welch, Shenandoah, Iowa, Chairman; J. B. Pilkington, Portland, Oregon, one year; Lloyd C. Stark, Louisiana, Mo., one year; J. H. Dayton, Painesville, Ohio, two years; H. B. Chase, Chase, Ala., two years; J. R. Mayhew, Waxahackie, Texas, three years; Theo. Smith, Geneva, New York, three years; Vice-President, John Watson, Newark, N. Y., ex-officio.

Attorney for Association—Curtis Nye Smith, Boston, Mass.

Chairmen of Committees

Transportation—Chas. M. Sizemore, Louisiana, Mo.

Tariff—Irving Rouse, Rochester, N. Y.

Legislation East of Mississippi River—Wm. Pitkin, Rochester, N. Y.

Legislation West of Mississippi River—Peter Youngers, Geneva, Neb.

Co-Operation with Entomologists—L. A. Berckmans, Augusta, Ga.

Program—L. C. Stark, Louisiana, Mo.

Exhibits—Albert F. Meehan, Dresher, Pa.

Arrangements and Entertainment—T. J. Ferguson, Wauwatosa, Wis.

Publicity—J. R. Mayhew, Waxahackie, Texas; L. C. Stark, Louisiana, Mo.

Editing Report—John Hall, Secretary, Rochester, N. Y.

Root Knot—E. A. Smith, Lake City, Minn.

Membership—Will B. Munson, Chairman, Denison, Texas.

Finance—J. H. Dayton, Painesville, Ohio; T. J. Smith, Geneva, N. Y.; John Watson, Newark, N. Y.

STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irvine Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H. W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

Canadian Association of Nurserymen—President, E. D. Smith, Winona; secretary, C. C. R. Morden, Niagara Falls, Ont.

Connecticut Nurseryman's Association—President, Walter E. Campbell, New Haven, Conn.; secretary, F. L. Thomas, Manchester, Conn.

Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Litooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell, Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, E. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, E. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York. Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio; secretary, W. B. Cole, Painesville, Ohio.

Oregon—Washington Association of Nurserymen—President, C. F. Breilhaup, Richland, Wash.; secretary, C. A Tonneson Tacoma, Wash

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Andorra, Philadelphia Secretary, Henry T. Moon, Morrisville, Penna.

Southern Nurserymen's Association— President, Milton Moss, Huntsville, Ala.; secretary-treasurer, A. I. Smith, Knoxville Tenn. Next meeting, Hendersonville, N. C.

Tennessee Nurserymen's Association—President, J. H. Austin, Antioch, Tenn. Secretary-Treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Deninson, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas.

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

WANTED

Wanted.

A young man for agency, correspondence with a future. A fine opportunity. Address

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MONROE - - MICH.

WANTED; Nursery Foreman.

A large ornamental nursery wants a good live nurseryman, capable of handling men. Knowledge of propagation not required.

Good salary and opportunity for advancement will be given to the man who can fill these requirements.

Let your application contain full information as to experience, age, reference, and how long employed in present position, also salary expected.

Position must be filled before March 1st. Address

New Jersey
CARE NATIONAL NURSERYMAN

FOR SALE

FOR SALE—Whole or part interest in Established Nursery within easy hauling distance of Chicago's finest suburbs. Ample acreage, up-to-date buildings, large variety developed immediate effect stock, exceptional opportunity for party with moderate capital. Address

"INTEREST," Care of National Nurseryman.

FOR SALE

We offer for sale a large block of the capital stock in a large Wholesale and Retail Nursery. The buyer must be thoroughly acquainted with the nursery business, and would be expected to assist in the management and serve as a director.

Address "S," Care of National Nurseryman.

FOR SALE; Retail Nursery Business

Located within 50 miles of St. Paul and Minneapolis (the garden spot of the northwest). A growing mail order trade, (17 years established) with an enviable reputation. Exceptional opportunity for live man with some experience and capital. Will sell whole or part interest to right party; with or without land; modern buildings and good general stock.

"NURSERY," Care National Nurseryman.

Hardy Native Plants and Trees
For Immediate Effect
RHODODENDRON MAXIMUM A SPECIALTY
Nursery Grown Hemlocks
THE CHARLES G. CURTIS COMPANY,
Write for Price List CALLICOON, N. Y.

BLACKBERRY ROOT CUTTINGS

BERRY PLANTS of all kinds and PEACH TREES. A million surplus. Ask for samples. HALF PRICE to close out.

Get our Price List before you buy.

GRAY'S WHOLESALE NURSERIES,
Salem, Ind.

NO QUARANTINE OF CHESTNUT NURSERY STOCK

Following a public hearing on the subject, the Federal Horticultural Board has determined not to quarantine chestnut nursery stock for the purpose of preventing the distribution of the chestnut bark disease. The board announced that the disease spreads slowly and opportunity had already existed for several years for the distribution of this disease in small quantities to areas where extensive new plantings of chestnut are being inaugurated. Recommendation is made that plantings of chestnut stock be carefully inspected for the presence of the disease.

RAFFIA

What it is—Its Uses

James McHutchison & Co., 17 Murray street, New York, received by one steamer 659 bales of raffia. Some of these shipments had been in transit from Madagascar for more than six months.

It is of interest to know that raffia is the understrippings of the leaves of the palm *Raffia Arabica* which grows wild in Madagascar and parts of East Africa. After being bleached and dried it is put in plaited or twisted hanks, packed in tightly compressed bales of about 225 pounds and shipped to foreign ports.

Europe takes by far the greatest share, though the thrifty Japanese and Hungarians quickly recognized its adaptability and its cheapness. As a tying material it has no equal, it is strong and pliable, heat or cold does not affect it, and water will not damage it. Nurserymen were the first to recognize its value in the United States and its cheapness is proven by the fact that a single pound is expected to bud or graft 4000 trees.

Twelve years ago McHutchison & Co. began to import raffia in a wholesale way, less than 300 bales a year were then reaching America. Now this one house imports over 1400 bales per year.

A CORRECTION

In our last issue in the letter from John P. Vikla on the subject of Inspection Laws a typographical error occurs in the last paragraph but one, it should read "intrastate" instead of "interstate."

A. Willis & Co.

Ottawa, Kansas.

Offer for Spring 1916

A general assortment of stock in all grades including Apples, Pears, Cherries, Plums, Peaches, Grapes, Blackberries, Strawberries, Ornamental Trees, Shrubs and Roses. Kansas grown Apple seedlings. Prices reasonable. Your orders solicited.

HATHAWAY'S BERRY PLANTS.

(Lake County Ohio Grown)

You Cannot Buy Better—Even Though You Paid More

The Leading varieties in large quantity, graded in from two to four grades as to variety and class are offered the trade at attractive prices. Send your want list now, that we may quote you a price on the whole want, be it for 1,000 or 100,000.

WE OFFER IN BLACKBERRY

Root Cutting, Sucker or Transplants—Ancient Britton, Eldorado, Erie, Early Harvest, Early King, Blowers, Mercereau, Ohmer, Stones Hardy, Snyder, Taylor, Watt, Ward, Iceberg—and Lucretia Dewberry.

WE OFFER IN RASPBERRY

Tip, Cane and Transplants, (Black) Gregg, Cumberland, Kansas and Plum Farmer. (Purple)—Columbian, Haymaker, Cardinal, Shaffers Collossal, and ROYAL PURPLE (the best of all purple sorts) **(Yellow)—Golden Queen,** very fine cane and transplants of these, at a bargain. **(Red varieties)—St. Regis. (Everbearing)—Perfection, Eaton, Herbert, Loudon, Cuthbert, Miller, Marlboro and Early King.**

STRAWBERRY PLANTS TOO—Only such varieties as produce large to very large berries, including the Fall bearers are grown and offered from

FERTILE ACRES FARMS

Where the most extensive acreage is devoted exclusively to propagating berry plants under one management in Ohio, if not in United States.

Growing fine Plants and Berries is our Business
Prompt Service is our Hobby

Therefore remember when you want plants and service as good as Hathaway's you should buy of Hathaway.

Your for Quality Plants,

Wick Hathaway,
Madison, Ohio.

A. A. of N.

Permanent Badge, No. 157.

P. S.—I offer a few hundred Butterfly Bush Plants for Spring delivery.



"THATS ME"

FELIX & DYKHUIS



FELIX & DYKHUIS

EUONYMUS VEGETUS

The rarest evergreen climber, common name
EVERGREEN BITTERSWEET

Specimen Arbor Vitae, Norway Spruce, and Hardy Phlox in best quality, can supply in carload lots, get sample and prices.

ADOLF MÜLLER
DeKALB NURSERIES Norristown, Pa.

TRADE DIRECTORY

Price $3.00, Postpaid

NATIONAL NURSERYMAN PUB. CO. Inc.,
ROCHESTER, - - - N. Y.

Let me quote you on
TREE AND SHRUB SEED
CONIFER AND ACORNS
A Specialty
J. F. VON HAFFTEN, Consulting Forester,
Winfield Junction - - Long Island, N. Y.

For Spring, 1916

We mention a few items of our large and complete stock that may prove of interest. Let us hear from you as to your needs.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Norway Maples, 2-inch caliper and up. California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Also, a large and complete assortment of Ornamental Trees and Flowering Shrubs. Among our large stock of Fruit Trees, we call especial attention to our surplus of

10,000 Kieffer Pears, 2 and 3 years
20,000 Stayman's Winesap Apples, 11-16 in. and up
10,000 Downing Gooseberries, 2 years, No. 1
200,000 Apples, 2-year buds, fine

Hoopes, Bro. & Thomas Company

Maple Avenue Nurseries

PHILADELPHIA OFFICE
222-3-4-5 Stephen Girard Bldg.
21 So. Twelfth Street

West Chester, Pa.
Established 1853

Advertising + Stock = New Sales

Just as sure as

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So start your
SPRING ADVERTISING CAMPAIGN
NOW

THE VERY BEST

Apple Trees, One and Two Years
Cherry Peach Kieffer Pear
Grapes
Rhubarb, True Myatt's Linnaeus, Divided Roots

SHADE AND ORNAMENTAL TREES

American Elm
American Sycamore
Cornus Florida
Kentucky Coffee
Silver Maple
Cut-leaved Maple
Carolina Poplar
Bechtel's Flg. Crab 4 to 5 ft., and 5 to 6 ft.
Catalpa Bungei, straight stems
Catalpa Speciosa
Honey Locust, Thornless and Common
Tulip Tree
Volga Poplar
Texas Umbrella

ORNAMENTAL SHRUBS

Althea
Calycanthus
Cydonia Japonica
Cornus Siberica
Deutzia
Eleagnus
Forsythia
Upright Honeysuckle
Berberry, Purple-leaved and Thunbergii
Lilac, Common and Named Sorts
Philadelphus
Spirea
Viburnum
Weigelia
Hydrangea Arborescens Grandiflora
Hydrangea Paniculata
The Hydrangea we offer are strong, vigorous plants. An unusually good lot

FRIVET

California and Amoor River, hardy
California, 1 year, 12 to 18 in. and 18 to 24 in.
2 years, transplanted, 2 to 3 ft. and 3 ft. and over
Amoor River, 1 year, 12 to 18 in. and 18 to 24 in.
2 years, transplanted, 2 to 3 ft. and 3 ft. and over.

ROSES

Excelsa, a fine crimson rambler
Dorothy Perkins White Dorothy Perkins

FOREST TREE SEEDLINGS
APPLE SEEDLINGS
APPLE GRAFTS

J. H. SKINNER & CO.
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Root Cutting Blackberry
Fine Stock of Early Harvest, Snyder and Ancient
Briton RHUBARB, strong one to three year size.
MALLOW MARVELS one to three year and lining out stock grown from selected strains.
Cuttings in assortment
Wild Bros. Nursery Co.
SARCOXIE - - - MO.

CHAMPION NURSERIES, Perry, Ohio.
Offer fine lot Peach in all grades
JAP PLUMS, 1 year, 5 to 7 feet
CATALPA BUNGEI, 1 and 2 year heads
BARBERRY THUNBERGI, 18 to 24 in.
SPIREA VAN HOUTTI, 3 to 3½ feet
Berry Plants all kinds, Grape Vines, Etc.
H. J. Champion & Son, Perry, Ohio.

ROSES For Lining Out. For Short Lists.
THE LEEDLE FLORAL COMPANY SPRINGFIELD·OHIO·

GRAPE VINES
OTHER SPECIALTIES: Gooseberries, Currants.
Send want list for prices.
The JOSSELYN NURSERY COMPANY,
Fredonia, N. Y.

Will exchange peach trees for 2 year apple trees. Want evergreens and other ornamental stock for Spring delivery.
ROCK CREEK NURSERIES
M. G. Coplen, Prop. Rockville, Md. R. F. D. No. 3.

J. B. WAGNER
Specialist on Rhubarb, Berries, and Cactus
Prices on Application
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40 ACRES solid to Superb. Progressive, Americus and other best everbearers. Get acquainted offer for testing. Send us 10c for mailing expense, and we will send you 6 high quality everbearing plants (worth $1) and guarantee them to fruit all summer and fall, or money refunded. Catalogue with history FREE if you write today.
THE GARDNER NURSERY CO.
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TREE SEEDS
Large assortment of Tree, Shrub and Fruit Seeds for ornamental and forestry purposes
Send for catalogue. **CONYERS B. FLEU, Jr.**
Germantown, Philadelphia, Pa.



Unusual and rare stock in great variety; hardy Bamboos, Palms, Crapemyrtles, Fruit and Economic trees and plants, etc., etc., from all over the world.
New additions constantly being tested. Ask for complete descriptive catalog, and wholesale rates. **34th year.**
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ONECO - - FLORIDA.

FOR ROSES LOOK TO
The CONARD & JONES Company,
West Grove, Pa.

Large Stock of
RHODODENDRONS, CONIFERS, AZALEA MOLLIS, DUTCHMAN'S PIPE, ROSE BUSHES, BOXWOOD, CLEMATIS, HYDRANGEA P. G., BLUE SPRUCE, AMPELOPSIS, ETC.
Will be pleased to submit our special prices upon application.
KALLEN & LUNNEMANN, Boskoop, Holland

Our price list of Ornamental Nursery Stock has been mailed to the trade. If you did not receive a copy send for it.
AUDUBON NURSERIES,
Box 731 - - - WILMINGTON, N. C.

You can save *TIME* and *MONEY*

if you use our neatly packed

SHEET NURSERY BURLAP

Put up in bales

In various size sheets ranging in size from 24x24 to 40x40 inches

Write for particulars

Sarachan & Rosenthal

64-66 Hanover Street

Rochester, - - New York

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For Nurserymen and Florists

The kind that give satisfaction.

Facilities for the handling of your requisite, combined with the quality of our product is unsurpassed.

Samples and prices are at the command of a communication from you.

Dayton Fruit Tree Label Co.

South Canal St., Dayton, Ohio

STRAWBERRY PLANTS

From the largest Strawberry center in the world; millions of plants; 70 varieties; all of the standard and new market sorts. 1 and 2 year old Asparagus roots; Cal. Privet; Peach trees and etc. Send want list for prices.

BUNTING'S NURSERIES

G. E. Bunting & Sons, - SELBYVILLE, Delaware.

A Few Good Things

You will need this Spring, Two Year Apple, One Year Peach, in assortment, Kieffer and Bartlett Pear, two year, Plums, One year, Abundance, Burbank, America, Spireas, Van Houttei, Billardi, Norway Spruce, Juniper, Arbor-Vitaes, and many other items you will need, at right prices, let us have your want list.

Easterly Nursery Co., Cleveland, Tenn.

Remember!

If its a HARDY PERENNIAL or so called OLD FASHION FLOWER worth growing, we have it in one shape and another the year round. We have the largest stock in this country, all Made in America, and our prices

Why say more here. Send for our Wholesale price list of varieties and benefit from the opportunities this affords you.

Our motto: "Maximum Quality, Minimum Cost."

Address, R. W. Clycas, Mgr.

Palisades Nurseries, Inc. Sparkill, N. Y.

YOUNGERS & CO

Geneva, Nebraska.

Apple Trees **Peach Trees**

Compass Cherry

Shade Trees

Ash, Catalpa, Elm, Maple, Lombardy Poplar, Linden, Sycamore, Black Walnut.

Ornamental Shrubs

Flowering Almond, Prunis Tribola, Snowball, Siberian Dogwood, Spirea Van Houti, Spirea Arguta.

Seedlings

Apple, Cherry, Pear, Plum, Maple, Box Elder, Catalpa, Osage.

Write for Prices.

P. OUWERKERK,

No. 216 Jane St., Weehawken Heights, Hoboken, N. J.

Rhododendrons, Clematis, H. P. Roses, Hardy Azaleas, Paeonies, Magnolias, Box Trees, Fancy Conifers, Hydrangeas and Shrubs, our specialties at our HOLLAND NURSERIES. Some of the goods on hand here during the packing season.

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Catalogues
Stationery
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Hatboro, Pa.

Specialists in Nursery Printing

Ask for Prices. We are the printers of this Magazine

For **FUMIGATION** With

HYDROCYANIC ACID GAS

"CYANEGG"

Sodium Cyanide in egg shape, each egg weighs as near one ounce as possible. Destroys scale insects on Fruit Trees, Nursery Stock, Plants under glass and in Greenhouses.

Manufactured in U. S. A. by

The Roessler & Hasslacher Chemical Co.

100 WILLIAM ST. - NEW YORK, N. Y.

PLEASANT HILL NURSERY CO.

FINLEY & WINDMILLER, Props.

PLEASANT HILL, ILL.

We offer a large stock of Apple Trees, peach, plum and cherry trees, in all leading varieties. Send us your want list for Quotations.

Special price on peach in Car Lots. Better get our prices. We can save you money.

Peach Trees and Strawberry Plants

all leading market sorts for Spring, 1916

MYERS & SON, - Bridgeville, Del.

W. B. COLE, PAINESVILLE, OHIO.



ONE OF OUR STORAGE CELLARS

IT IS FULL TO THE ROOF WITH STOCK, READY FOR PROMPT SHIPMENT.

PARTIAL LIST OF STOCK ON HAND.

Fruit Trees

STANDARD APPLES—An unbroken list of varieties.
DWARF APPLES—Fifteen of the leading varieties.
STANDARD PEARS—2 years. None better anywhere.
DWARF PEARS—2 years. As good as can be grown.
PEACHES—Unusually fine stock. Over 50 varieties.
WILMA PEACH—Identical with Elberta but **one week later.**

Small Fruits

CURRANTS—Champion, Naples and Wilder, 1 and 2 years.
GOOSEBERRIES—Downing, 1 and 2 years.
GRAPES—Catawba, Concord, Moore's Early, Niagara, 1 and 2 years.
RASPBERRIES—Cuthbert, Golden Queen and St. Regis.
BLACK RASPBERRIES—Cumberland, Gregg, Kansas, Plum Farmer.
" " transplants—Gregg, Kansas, Plum Farmer.
BLACKBERRIES—Root Cutting Plants, Extra Size, No. 1 and No. 2. Also a lighter grade for lining out. Eldorado, Mersereau, Ohmer, Snyder, Taylor.

Ornamental Trees

CATALPA BUNGEI—One, two and three year heads.
" **SPECIOSA**—Up to 2½ inch caliper.
ELM, AMERICAN and SCOTCH—Up to 4 inch caliper.
HORSE CHESTNUT—Up to 3 inch caliper.
MAPLE, SILVER—Up to 4 inch caliper.
" **SUGAR**—Superior, straight, well furnished trees up to 3½ inch caliper.
SYCAMORE, EUROPEAN—Up to 3 inch caliper.

Shrubs

ALTHEAS—Named sorts, 2 to 3 and 3 to 4 feet.
BERBERRY THUNBERGI—1 to 1½, 1½ to 2 and 2 to 2½ feet.
CORNUS ELEGANTISSIMA VARIEGATED—3 to 4 feet.
" **SIBERICA**—2 to 3 and 3 to 4 feet.
ELDER, GOLDEN—2 to 3 and 3 to 4 feet.
FORSYTHIA, INTERMEDIA and SUSPENSA—3 to 4 and 4 to 5 feet.
PHILADELPHUS, CORONARIUS and GRANDIFLORA—3 to 4 and 4 to 5 feet.
HYDRANGEA ARBORESCENS GRANDIFLORA—1½ to 2 and 2 to 3 feet.
SNOWBERRY, WHITE—2 to 3 and 3 to 4 feet.
" **RED**—2 to 3 feet.
SPIREA, OPULIFOLIA AUREA—4 to 5 and 5 to 6 feet, heavy clumps.

Hedge Plants

PRIVET, CALIFORNIA—2 years, 1 to 1½, 1½ to 2 and 2 to 3 feet.
" **VULGARIS**—2 years, 1 to 1½, 1½ to 2 and 2 to 3 feet.

Evergreens

ARBOR VITAE, AMERICAN—3 to 4 and 4 to 5 feet.
" " **PYRAMIDALIS**—3 to 4 and 4 to 5 feet.
PINE, MUGHO (Dwarf)—1 to 1½ and 1½ to 2 feet.
HEMLOCK—2 to 3, 3 to 4 and 4 to 5 feet.
RETINISPORA, PLUMOSA—1½ to 2 feet.
" " **AUREA**—1½ to 2 and 2 to 3 feet.
" **PISIFERA**—2 to 2½ feet.
" " **AUREA**—2 to 2½ feet.
" **FILIFERA**—18 inches.
" " **AUREA**—15 to 18 inches.
" **SQUARROSA VEITCHI**—18 to 24 inches.

Evergreen Shrubs

KALMIA LATIFOLIA—18 to 24 inches.
RHODODENDRONS—Ponticum Seedlings, 18 to 24 inches.
" —Named Sorts, 18 to 24 inches.
MAHONIA AQUIFOLIA—1½ to 2 and 2 to 3 feet.

Roses

HYBRID PERPETUAL—Strong, 2 years. 40 Varieties.
CLIMBING ROSES—Strong, 2 years. 15 Varieties.
MOSS ROSES—Strong, 2 years. 3 Varieties.
STANDARD ROSES—1 year heads. 15 Varieties.

Climbing Vines

AMPELOPSIS VEITCHI—2 years.
HONEYSUCKLE HALLEANA—Strong plants.
IVY, ENGLISH—3 feet.

Perennial Plants

CHRYSANTHEMUMS—20 Varieties.
DELPHINIUM CHINENSIS.
DICENTRA SPECTABILIS (Bleeding Heart)
GERMAN IRIS—5 Distinct Varieties.
JAPAN IRIS—5 Distinct Varieties.
TRITOMA PFITZERI.

The CASHMAN Soil Firmer and Trencher

Greatest and Most Successful Labor-Saving Machine ever built for the Nurseryman.

Used by all Large Planters.

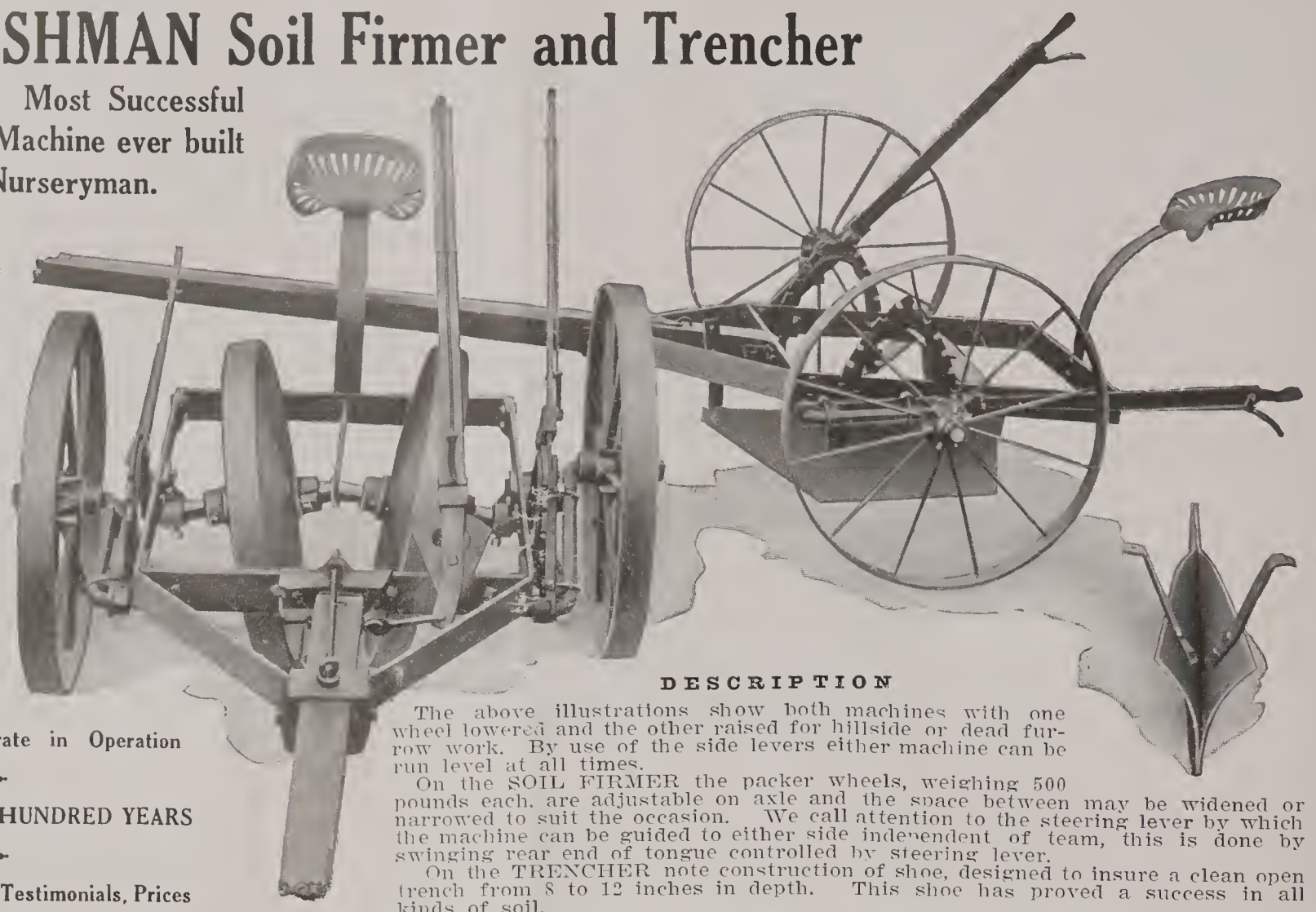
Built Entirely of Steel and Iron

Rigid and Substantial in Construction

Simple and Accurate in Operation

WILL LAST ONE HUNDRED YEARS

Write for Circulars, Testimonials, Prices



DESCRIPTION

The above illustrations show both machines with one wheel lowered and the other raised for hillside or dead furrow work. By use of the side levers either machine can be run level at all times.

On the SOIL FIRMER the packer wheels, weighing 500 pounds each, are adjustable on axle and the space between may be widened or narrowed to suit the occasion. We call attention to the steering lever by which the machine can be guided to either side independent of team, this is done by swinging rear end of tongue controlled by steering lever.

On the TRENCHER note construction of shoe, designed to insure a clean open trench from 8 to 12 inches in depth. This shoe has proved a success in all kinds of soil.

ANY INEXPERIENCED DRIVER CAN OPERATE THESE MACHINES

MANUFACTURED BY **CLINTON FALLS NURSERY CO.** OWATONNA, MINN.

The Westminster Nursery

Westminster, Md. **J. E. Stoner, Prop.**

We are offering for Spring 1916, Peach and Apple Trees, California Privet, Asparagus 1 and 2 year, Downing Gooseberry and Snyder B. B. plants, Berberry Thunbergii in grades.

Can supply the above in car load lots or less. We also have a large surplus of Hydrangeas P. G., Spireas and Deutzias assorted, Evergreens, N. Maple, Horse Chestnuts and Carolina Poplar. Please submit list of wants for prices.

We offer

North Carolina Natural Peach Seeds

We are now ready to quote lowest prices on

FRUIT, SHADE AND ORNAMENTAL TREES, SHRUBS, EVERGREENS, VINES and HERBACEOUS PLANTS

FOREST TREE SEEDLINGS we only have in limited supply this season, and would advise placing your orders early.

TREE SEEDS we can supply in limited quantities.

Send list of your requirements for lowest prices. Trade list ready.

The Willadean Nurseries

Sparta, Ky.

CHERRY TREES  CHERRY TREES

The best that it is possible to produce. Good Tops and fine Roots. Foliage held until frost insuring plenty of Vitality, the kind that grow. try our 11-16 up One Year, ask for Sample.

Also General Line of other Nursery Stock. Japan Plums 11-16 up One Year are very fine.

Hardy Budded Northern Pecans and English Walnuts.

Vincennes Nurseries - **W. C. REED**, Prop.
Vincennes, Ind.

WE OFFER

Grape Vines, Currants and Gooseberries

in all varieties and grades

——also——

Grape and Currant Cuttings and Light Grade of Vines for Lining Out in Nursery Rows

WRITE FOR PRICES

F. E. SCHIFFERLI, Fredonia, N. Y.

ENGLISH NURSERY STOCK

GROWN IN LARGE QUANTITIES

RHODODENDRONS a splendid lot this season, fine bushy plants. Plenty of the hardy Catawbiense named varieties suitable for the American climate including the newer and superior kinds.
AZALEAS, ANDROMEDA, KALMIA and other American plants in great variety.
CONIFERS a large stock, of all hardy kinds.
HARDY ORNAMENTAL, EVERGREEN and DECIDUOUS TREES.
ROSES. Dwarfs and Standards in all varieties.
CLEMATIS AND CLIMBING PLANTS.
FRUIT TREES Espalier trained pyramids in quantity.
MANETTI ROSE STOCKS 1 year splendidly rooted from sandy loam, none better imported.
A general assortment of hardy outdoor stock. Glad to answer inquiries.

THIRTY YEARS SUCCESSFUL TRADING IN THE STATES

No Agents. Write direct for wholesale catalogue to

WALTER CHARLES SLOCOCK, Goldsworth Nurseries, Woking Surrey, England

Half an hours rail from London, London & S. W. Ry., Main Southampton Line. Cable Slocock Woking. (A. B. C. Code).

"We Raise Our Own Trees"

Evergreens

SEEDLINGS—TRANSPLANTS

Select from our specialized collection of young conifers for every place and purpose. Stock particularly suited for lining out and forest planting. Your order will have personal attention and the price will be right. Send for our catalogue and save money.

Discount to Trade

The North Eastern Forestry Co.
Box E. CHESHIRE, Conn.

V.G.'S VERY GOOD

HARDY NURSERY STOCK SUCH AS

AZALEAS, BUXUS,
CONIFERS, EVERGREENS,
PAEONIES, MAGNOLIAS,
RHODODENDRONS, ROSES, ETC.

Offered by

VAN GELDEREN & CO.

Wholesale Nurseries

Ask for Catalogue — BOSKOOP (Holland)

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FRUIT AND SEED FARMS

OFFER *for Spring 1916*

GRAPE VINES—One and two years old. Varieties largely Moore's Early, Concord and Niagara.

Also Scarlet or Crimson Clover Seed and Cow Peas. Free from weed seeds, all recleaned and guaranteed first class.

Correspondence solicited. Price list upon request.

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The Framingham Nurseries

200 Acres
High Grade
Trees, Shrubs,
Evergreens,
Vines, Roses,
Etc.

DEAL TRADE MARK

Fine Stock
of
Rhododendrons
Kalmias
and
Andromedas

Send for Price List

W. B. WHITTIER & CO.

FRAMINGHAM, MASS.

We have a splendid stock of

Grape Vines

and other small fruit plants for the Nursery trade, graded up to the highest standard and sure to please you.

Give us a trial order, send in your list now for quotations

WHEELOCK & CONGDON
SUCCESSORS TO
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North Collins, N. Y.

Foster-Cooke Co.

Nurserymen ***Fredonia, N. Y.***

Growers of

Grape Vines, Gooseberries, Currants

One and two years old. Graded up to the highest standard. Our stock never looked better. Write us for catalog. Send us your list of wants. Our prices are right, our stock A No 1.

We grow our Stock up to QUALITY and GRADE, not down to a price. Nevertheless, our prices are always in line, you can't afford to pay less, and there's no sense in paying more. If you are pleased with what you have been getting, you will be better pleased with our stock.

Planet Jr. Cultivators

eat up work in field or garden

You can't afford to till the ground without Planet Jr. tools. They not only save hard labor, but they enable you to cultivate double the acreage in the same time, and thus add over 100 per cent. to your crop yield. Invented by a practical farmer and manufacturer—the result of fifty years' experience. Strong, lasting construction. Fully guaranteed.

NEW 72-PAGE CATALOG (184 illustrations) FREE!

Describes over 70 tools, including 12 entirely new ones, and improvements to our Seeders, Wheel-Hoes, Horse Hoes, Harrows, Orchard- Beet- and Pivot-wheel Riding-Cultivators. *Write postal for it today!*

S. L. ALLEN & CO., Box 1208V, Philadelphia.



No. 25 Planet Jr. Combined Hill and Drill Seeder, Double and Single Wheel-Hoe, Cultivator and Plow is a splendid combination for the seedsman, and nurseryman. Sows seeds accurately in drills or hills. Can be used as double wheel-hoe to straddle the row, or single wheel-hoe to run between rows. Hoes work close without injuring plants. Cultivating teeth and plows do thorough work. Unbreakable steel frame. Specially hardened cultivator steels that add 50 per cent. to wear. Capacity—2 acres a day. **32 styles of seed drills and wheel-hoes—various prices.**

No. 8 Planet Jr. Horse Hoe and Cultivator is stronger, better-made and capable of a greater variety of work than any other cultivator made. Non-clogging steel wheel, depth-regulator and extra-long frame make it run steady. Adjustable for both depth and width. **15 other styles of one-horse cultivators--various prices.**

67th Year *67th Year*

NOTICE

To our Customers and Friends

We wish to notify the Public that we will continue in active business, prepared to fill all orders promptly and carefully with

High Grade Nursery Stock

For Spring we can offer very attractive prices on Peach, Apple, Kieffer Pear, Asparagus, Privet and a general line of Shade and Ornamental Trees; an extra fine lot of 1 year Planes, Silver Maples and Privet for transplanting.

Send us your WANT LIST and do not place your orders without getting our prices.

Franklin Davis Nursery Co.

Wm. F. Stone, Trustee

BALTIMORE, MD.

J. GOUCHAULT & TURBAT Nurseries.

E. TURBAT & CO.

Nurserymen and Rose Growers

ORLEANS, France,

inform the whole Nursery Trade that, notwithstanding the War, they have maintained their Nurseries up to the usual level, and that they will be from now, very pleased to answer all demands for:

ROSES One of the most extensive existing collections, deliverable as DWARFS, on their own roots; grafted on Dog Rose roots, dwarf budded on Dog Rose seedlings; in all the best Old and New varieties; also as Standards or Tree roses.

ROSE STOCKS, such as ROSA CANINA, of which we have largely increased our production; MANETTI, GRIFFERAIE, LAXA, MULTIFLORA, POLYANTHA, &c.

FRUIT TREE STOCKS

All varieties, all sizes.

Young Deciduous Ornamental Trees & Shrubs

Very important collection

Young Conifers, very large collection. All the best sorts.

NEW RARE or NOTICEABLE TREES and SHRUBS the most up-to-date list published of deep commercial interest, must be consulted by all interested.

Grand List HARDY HERBACEOUS, New and Old, Etc.

Our new Wholesale catalogue is ready. Please ask for it

NOTICE:

Of Trustee's Sale of Nursery Stock.

The undersigned Trustee will offer for sale at public auction, in lots and as a whole, on the 19th day of February, 1916, at 1.30 o'clock, P. M., at the front door of the Court House at Springfield, Robertson County, Tennessee, the following nursery stock situated at Greenbrier in said County and State, that is to say:

80,000 apple trees, mostly two-year buds in leading commercial varieties; 20,000 pears, one and two-year buds, leading commercial varieties; 7000 Japan plums, one-year buds; 2000 cherries, one and two-year; 10,000 shade trees, consisting of Norway maple, Silver Maple, Carolina Poplar and Sycamore, and 500 Japanese Walnut. Also a good assortment of shrubs.

The above is only an estimate of the stock to be sold and is in no sense a warranty of the number of trees to be sold. This stock may be inspected at any time previous to the day of sale by prospective purchasers, who are requested to call on George Harris, of Greenbrier, Tenn.

Terms of sale, CASH.

S. A. POWELL, Trustee,

Harrisville, - - West Virginia.

A LITTLE ARGUMENT

To get this argument started, let's talk about our Retail Department.

Year after year this Department shows an increase.

It is doing more business every season.

We get new customers, and the old ones keep coming back.

What's the reason?

It's because we give them value—value in trees, value in shrubs, value in everything they buy.

We satisfy.

When our stock comes in from the field to be sorted, no distinction is made, that is—

The sorter has no idea of what proportion is going to be used in our Retail or Wholesale Departments.

It's all graded alike.

When you buy a bill of goods from us, you get the same grade and class of stock that we fill our retail orders with.

When **YOU** deliver that stock to your customer
YOU are delivering value, **YOU** are satisfying.
AND—
YOUR business depends on the satisfaction you give.
Our February 1st list is full of value and satisfaction.
Look it over.

Chase Brothers Company,

卐

The Rochester Nurseries

卐

Growers of Quality Stock

卐

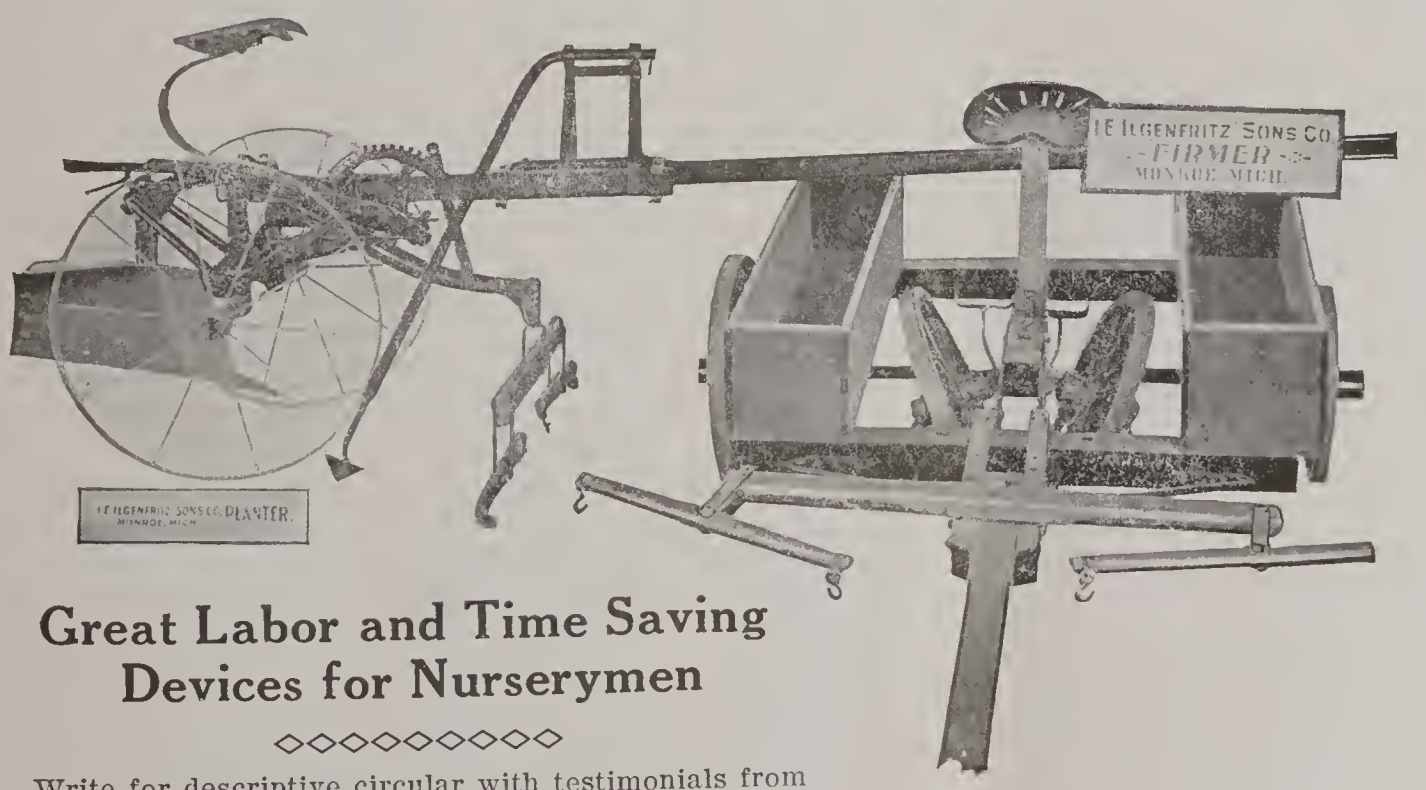
Established 1857

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Rochester, N. Y.

I. E. ILGENFRITZ' SONS CO.

Planter and Firmer



Great Labor and Time Saving Devices for Nurserymen

Write for descriptive circular with testimonials from leading nurserymen of 17 states of the Union.

If they can't get along without them can you?

TAKE THIS MATTER UP AT ONCE. Have machines for spring planting.

BETTER
AND MORE
UNIFORM
STANDS
OF STOCKS
GRAFTS
CUTTINGS
ETC.
At Less Cost.

I. E. ILGENFRITZ' SONS CO.

The Monroe Nursery, Monroe, Mich.

Bobbink & Atkins

Nurserymen and Florists

RUTHERFORD, NEW JERSEY

Palms and General Decorative Plants, **INSPECT**
Conifers, Shade and Ornamental Trees **INVITED**

ASK FOR WHOLESALE CATALOGUE

FRUIT TREES
ROSES
MANETTI STOCKS
in heavy quantities
Please write direct as we have no agents
Catalogue free on application

S. SPOONER & SONS,
The Nurseries - Hounslow,
Est. 1820 England

A Large Stock of
Apple, Pear, Cherry and Peach
Grape Vines, Blackberry and
Raspberry Plants
And a general line of ORNAMENTAL TREES and SHRUBS. All stock clean and thrifty, the best that can be grown.
T. B. WEST, Perry, Ohio

ARBOR VITAES

I have to offer for next Spring's planting, a few thousand each of the following varieties of Thuya:
OCCIDENTAL PYRAMIDALIS, COMPACTA, SIBERICA, ELWANGERIANA TOM THUMB ERICOIDES.
2 Year pot-grown, suitable for lining out
First-class in every respect, price reasonable
Address
Thos. A. M. Beth,
E. HIGH ST. - - SPRINGFIELD, OHIO

W. T. HOOD & CO.
OLD DOMINION NURSERIES
RICHMOND - - VIRGINIA

We offer for Spring 1916

A complete line of Nursery Stock. We can make Special prices on Peach trees, Apple trees, &c. We also have to offer a nice line of Norway Maples, Pin Oaks, Oriental Planes, &c. California Privet, Amoor River Privet, Norway Spruce, Peach Seed, Tenn. and N. C. Naturals.
Send us your want list for quotations.

SPECIALS!

Besides our usual stock of choice young Deciduous and Evergreen Seedlings for lining out. We have a surplus of Oriental and American Planes 8-10 and 10-12 feet; Lombardy, Volga, and Carolina Poplars, 8-10 feet; Tulip Trees, 8-10 feet; Deutzias, Forsythias, Scotch Brown and other shrubs, 3 to 4 feet specimens. You need our trade list to-day. Send for it.

ATLANTIC NURSERY CO., INC.
R. R. No 4. BERLIN, MARYLAND.

THE FLORISTS' EXCHANGE

EVERY SATURDAY
Advertising Space, $1 Per Inch Subscription, $1 Per Annum
Under this title we publish the most reliable, progressive and up-to-date trade paper in the country, with departments covering the **Nursery, Florist, Seed Trade and Allied Industries.** With a paid up subscription and distribution list of 9000 copies, nearly every copy of which is to men in business for themselves the worth of our columns will be readily appreciated. The editor of our Nursery Department is and has been for years, JOSEPH MEEHAN, of Philadelphia.
For sample copy, discounts, etc., address
The Florists Exchange, P. O. Box 1697, New York City.

RICE BROTHERS COMPANY.
Geneva, - - - N. Y.

Before placing your order for Spring 1916, get our prices on:—
APPLE, PLUM,
PEAR STD. and DWARF,
PEACH, CHERRY,
QUINCE, APRICOT,
ROSES, SHRUBS,
ORNAMENTAL TREES, ETC.
Large assortment of above.

Portland Wholesale Nursery Co.
Rooms 6 & 7 122½ Grand Ave. Portland, Oregon
WHOLESALERS OF NURSERY STOCK AND NURSERY SUPPLIES
A very complete Line of Fruit and Ornamental Trees, Shrubs, Vines, &c.
Specialties
CLEAN COAST GROWN SEEDLINGS
OREGON CHAMPION GOOSEBERRIES
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Write now.

TREES
Largest assortment in New England. Evergreens, deciduous trees, both common and rarer varieties. Sturdy, choice stock that can be depended upon. Send for catalog and special trade prices.

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This New England soil and climate produce fine sturdy shrubs. Special trade prices. By the thousands, hardy Native and Hybrid Rhododendrons—transplanted and acclimated. Send your lists, let us est.

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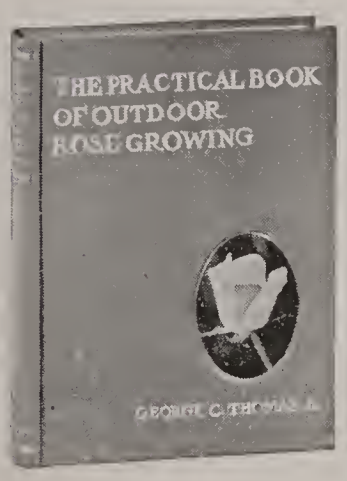
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300 varieties of Conifers, 1 to 4 years old.
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They are strong, hard, healthy plants with an abundance of roots.

We know how to pack them so they will reach you in good order.

Place your order now and we will reserve the plants for you.

Ask for Special Prices on any item in which you are interested.

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50,000	Aroma
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PEACH—One Year Budded
Ask for Special Quotations

	1 in.	¾	⅝	9-16	½	⅜	
	6-7	5-7	5-6	4-6	4-5	3-4	2-3 ft.
Belle of Georgia	5,000	10,000	9,000	8,000	8,000	9,000	7,000
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Edgmont Beauty		100	100	100	100	100	100
Ford's Late White		100	500	500	1,300	1,800	600
Fox Seedling	100	300	1,100	500	900	1,300	200
Foster		100	200	200	300	200	100
Francis		100	300	300	300	200	100
Fitzgerald		200	300	300	200	300	100
Geary's Hold On		100	300	300	400	300	100
Greensboro	1,500	2,000	1,500	1,600	1,700	1,700	1,100
Hieley		200	2,000	1,500	1,300	1,400	300
Kalamazoo		700	800	300	500	500	100
Levy's Late		100	100	200	200	200	100
Moore's Favorite	100	500	1,200	500	600	400	
Mayflower		100	200	200	300	300	200
Mamie Ross		200	200	300	300	200	100
Matthews Beauty		100	100	200	300	100	100
McCollister		100	100	200	300	100	100
Mountain Rose		200	200	300	300	200	100
New Prolific		100	1,000	300	700	500	300
Niagara		100	100	300	400	400	100
Old Mixon Free		100	100	300	400	300	200
Ray	5,000	9,000	8,000	9,000	10,000	8,000	8,000
Reeves Favorite		100	100	100	200	200	100
Salway	300	1,000	1,500	500	800	600	200
Slappey	400	600	1,300	500	1,000	800	500
Stump	200	500	1,500	1,500	1,800	1,000	500
Stephens R. R.		200	200	300	400	200	100
Waldell		100	200	300	200	200	100
Walkers V. Free		100	200	200	200	100	100
Willett		100	100	200	200	200	100
Wonderful		100	100	300	400	300	200
Yellow St. John		100	100	100	100	100	100

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BERLIN, MARYLAND

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24/3



THE NATIONAL NURSERYMAN



MARCH 1916

Published Monthly at Rochester, N. Y., U. S. A., in Behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General

THE MONROE NURSERY
Established 1847.
Offers a Fine Stock of

Peach, Gooseberries,
Currants, Berberis,
Spirea Van Houtte,
Other Ornamental Shrubs,
H. P. Roses, Etc.

Will be pleased to quote on your list of wants

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MOUNT ARBOR NURSERIES
E. S. WELCH, Proprietor
136 Center St., :: Shenandoah, Iowa

A Complete Line of High Quality Nursery Stock for
WHOLESALE TRADE
APPLE TREES—Over 100 Varieties
CHERRY, PLUM, PEAR, PEACH
BLACKBERRIES—Large stock root cutting plants
GOOSEBERRIES, CURRANTS, RASPBERRIES,
ORNAMENTAL TREES, SHRUBS, VINES
ROSES—Immense stock hardy kinds
PLANTING STOCK
APPLE GRAFTS, FRUIT TREE STOCKS,
ORNAMENTAL SHRUBS and DECIDUOUS SEEDLINGS
Ask for Spring Trade List and Bulletins
Always pleased to quote prices

IF YOU HAVEN'T RECEIVED
our Spring 1916 Trade List
Send for It.

SPECIALTIES FOR SPRING 1916:
Sapa on Native Plum Roots.
The leader of the Hansen Hybrids

Clematis Jack 2 yr. No. 1 Strong
Our own growing.
The best ever produced.

Rosa Rugosa 2-3 ft., 3-4 ft.
Native Roses. Climbers.
Sweet Brier.

American Linden or Basswood.
From northern seed.
1 in. to 3 in. caliper.

The Jewell Nursery Co.
Wholesale Nurserymen
LAKE CITY, MINNESOTA
Established 1868 1500 Acres

MARCH! means to you, Mr. Buyer, that Spring is here.

You ought to have your order placed. But if not, and you want good stock and prompt shipments, please let us serve you.

A near complete line of
FRUIT and ORNAMENTAL TREES
TOP NOTCH BERBERRY THUNBERGII, 3 yr. stock
and ONE YEAR SEEDLINGS
CALIFORNIA PRIVET
ROSES, H. P. and CLIMBING
A LONG LIST OF SHRUBS
ASPARAGUS AND RHUBARB
Send for Bulletin

C. R. BURR & CO.,
MANCHESTER, CONN.

For Spring 1916

300,000 APPLE, 2 & 3 year, splendid trees
75,000 CHERRY, 2 year, none better
200,000 CHERRY, 1 year, fine
40,000 PEAR, 1 & 2 year
40,000 PLUM, 1 & 2 year, fine

Also large stock of ELM, NORWAY, SUGAR, SOFT MAPLE, CATALPA BUNGII, and a general assortment of other ornamental trees, shrubs, hedge plants, perennials, small fruits, etc.

We can furnish ornamental trees in almost any size wanted.

A fine growing season, a fine lot of stock

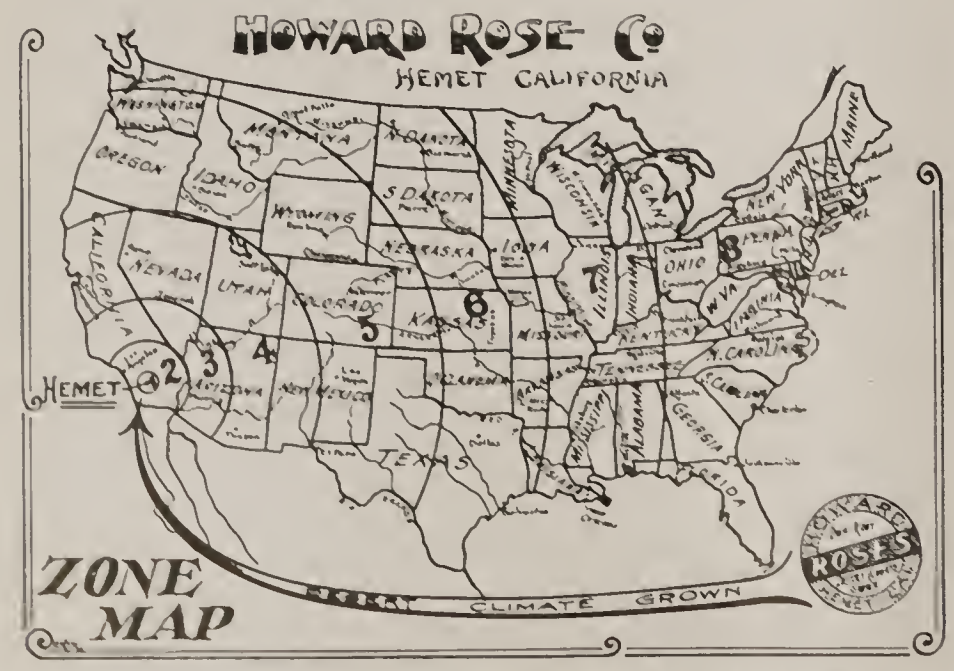
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Marion County, - - Bridgeport, Ind.

FIELD GROWN OWN ROOT ROSES

For JAN. FEB. and MARCH

By Express— Rate ¼c. per Zone number, Guaranteed not to exceed (i.e. - In 5th. Zone to our prices add 1¼ cents) Send for our prices, on printed stationery, please. By Freight— Via. Cold Storage, Deliveries after Feb. 25, 1916. Only Hard Sorts.



Now is the time to order
DIRECT IMPORTATIONS
From European Nursery Centers.

FRENCH FRUIT STOCKS

Pear, Apple, Myrobolan, Mahaleb, Mazzard Manetti, Multiflora and Quince. Also a full line of Ornamentals for lining out. Best packing and grading. December and February shipments from **Vincent Lebretons Nurseries, Angers, France.**

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Boxwood (bushes, pyramids, standards, ball-shape, etc.) Roses, Tree Roses, Azaleas, Magnolias, Rhododendrons, Koster Blue Spruce, Evergreens, etc. Fall or Spring shipment from **Schaum & Von Tol, Boskoop, Holland.**

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Norway and Schwedler Maples, Tilias, Oaks, Elms, Chestnuts, Planes, Thorns, etc. Straight stems, good roots, careful selection. Fall or Spring shipment from **Union Nurseries, Oudenbosch, Holland.**

HERBACEOUS PERENNIALS

Full list of varieties, also Aquatics, Rock Plants, etc.; low prices. Fall or Spring shipments from **Royal Tottenham Nurseries, Dedemsvaart, Holland.**

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MANETTI, Gooseberries (Whinham Industry, Whitesmith, Keepsake, Crown Bob, etc.), 2 and 3 years. Fall or Spring shipment from **John Palmer & Son, Annan, Scotland.**

BAY TREES from Belgium. All sizes, hardy Lilies from Japan, all varieties.

RAFFIA, Red Star, XX Superior, Arrow and AA West Coast Brands. Bale lots or less.

Shipping. We have our own Custom House department, with shipping connections at all shipping ports. We attend to the procuring of permits and all formalities.

McHutchison & Co., The Import House
17 Murray St., New York



Sour Cherries

Early Richmond



Niagara Peach



FRUIT TREES

We have Fruit Trees to sell,—hundreds of thousands of them; trees of finest quality and development, in very complete variety.

We are illustrating Sour Cherries, Standard Pears, Peaches and European Plums in this ad., because we are stronger on them just at this time.

Perhaps many other Nurserymen who read this will say, "So are we." Well, let's get busy and sell them.

The whole purpose of this particular message, is (aside from reference to the well-established S. & H. Co. quality and grade)—to remind those Nurserymen who have lesser acreage, fewer varieties and a more limited scope, that—



The Painesville Nurseries are in a position to fill out your requirements for Orchard, Street, Lawn, Garden, Border or Conservatory. ON A SINGLE ORDER It saves time—freight—and worry!

The Storrs & Harrison Company

"THE PAINESVILLE NURSERIES"

Established In 1854 — **Painesville, Ohio.** — 1200 Acres 45 Greenhouses

WE CAN USE

CALIFORNIA PRIVET, AMOOR RIVER PRIVET, SHRUBS,
Staple varieties; **ROSES**, field grown.
In exchange for

PEACHES, 1 year	No. 1	Medium
Admiral Dewey	1545	
Alexander	700	
Beer's Smock	3140	1800
Belle of Georgia	1895	300
Bokahra	1275	
Carman	3800	790
Chair's Choice	1370	985
Champion	970	560
Crosby	3265	710
Crawford Early	3120	2520
Crawford Late	1780	1850
Elberta	6500	4100
Fitzgerald	640	
Foster	755	
Fox Seedling	1300	425
Greensboro	935	
Lamont	2410	795
Mayflower	2310	
Morris White	1425	1140
Mountain Rose	1595	550
Niagara	2510	1040
Old Mixon Free	1695	715
Salway	3340	930
Stump-the-World	1035	860
Triumph	240	
Wheatland	310	60
Yellow St. John		400

CURRANTS, 2 years, extra fine	No. 1 grade	Medium grade	No. 2 grade
Black Champion			600
Black Victoria	3300	475	1150
Boskoop Giant	1780	450	285
Cherry			1950
Fay's Prolific		14000	17600
Lee's Prolific	1200	200	925
Perfection		345	4800
President Wilder			1400
Red Cross	725	100	1200
White Grape	6800	5500	4900

GOOSEBERRIES, 2 years, strong plants	No. 1 grade	Medium grade	No. 2 grade
Downing	7200	2700	2025
Houghton	9000	1475	210

JACKSON & PERKINS CO.
Newark, - - New York State.

Heikes—Huntsville—Trees



Huntsville Wholesale Nurseries
Huntsville, Ala.
MILTON MOSS, Prop.

We offer for Spring of 1916 in large quantities as usual:

Alabama's **C**hoice **P**roduct
All **C**orrect **P**rices
Carefully **P**acked

Apple
Apricot
Abelia Grandiflora

Cherry
Compass--Cherry--Plum

Peach
Pear
Plum
Pecan seedlings
Privet

ROSES: Budded H. P's. One of our specialties. We grow them by the hundred thousands.

SUNDRY ORNAMENTALS
Send us your orders and inquiries
See Price List for Particulars.
HUNTSVILLE WHOLESALE NURSERIES
HUNTSVILLE, ALA.

Hill's Evergreens

You can work up a good profitable trade in Evergreens if you have the right kind of stock. Our main specialty for over half a century has been the propagation of young Evergreen stock for the wholesale trade in immense quantities at low prices.

We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

YOU want to keep posted on Evergreens;
WE want to become better acquainted with you;
Let's get together.

The D. HILL Nursery Co., Inc.
Evergreen Specialists
LARGEST GROWERS IN AMERICA.
Box 401 - Dundee, Ill.

Have you seen and examined the quality and finish of our

Rawhide Brand of Shipping Tags and Tree Labels

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This stock is especially adapted to the most severe usage, being thoroughly waterproof & weatherproof. "Once used, always used."

Send for samples and prices. Our references are the largest nurserymen in the United States.

The Denney Tag Co.
West Chester, Pennsylvania

GROWN FOR A MOST PARTICULAR LANDSCAPE TRADE

OUR SURPLUS, GROWN ON OUR OWN GROUNDS, IS LISTED BELOW. IF YOU CAN USE ANY OF THESE WELL TRAINED SHRUBS AT A PRICE IN QUANTITY WRITE US

5,000	Japanese barberry, 2½–3 ft., Fine
11,500	Philadelphus, in variety 5 ft., Bushy
11,000	Spiraea Van Houttei, 3–4 ft.
11,700	Lonicera Morrowi, 3–4 ft., Bushy
3,000	Cornus Siberica, 3–4 ft., Heavy
40,000	Privet Amorense, 3 ft., 14–18 in., Branched
1,800	Silver Maple, 2 in. diam., specimens
2,300	Lombardy Poplars, 1½-2 in. diam., specimens

Also, Spiraea opulifolia, Salix, Hibiscus Moscheutos.

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THE PRICE IS RIGHT!

BEAUDRY'S NURSERY CO.

GROWERS FOR AND DESIGNERS OF
LANDSCAPE IMPROVEMENTS

700 RAILWAY EXCHANGE BLDG. CHICAGO.

The Macatawa Everbearing Blackberry.

The only everbearing Blackberry, originated by Alfred Mitting, Holland, Mich., 1909, a cross between the Giant Himalaya, and Eldorado Blackberries. It fruits from the new wood Spring, Summer and Fall. The hardiest Blackberry anywhere in the United States. Not a single kick to date, but all praise it. We have a stock of 400,000 plants.

MACATAWA PIECE ROOTS
MACATAWA, 1 year old.
MACATAWA, 2 years old, only 5,000 left.

250 at 1000 rate. When Cash is sent with order we Prepay Express charges, otherwise C. O. D. Descriptive Circular free.

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Lock Box, 685 SAN JOSE, California.

Berrydale Gardens,
San Jose, California.

Sullivan, Mo.
February 3rd, 1916.

Gentlemen:—

Please mail me your 1916 catalogue. Quote me your lowest prices on Macatawa Everbearing Blackberries of the following ages,

Root Cuttings per 1000.
One year plants by the 1000.
Two year plants per 1000.

The everbearing blackberries that I bought from you at HOLLAND, MICH., and also at Santa Cruz gave every satisfaction.

Very truly yours,
H. SHELBY MASON.

PLANET Jr. TOOLS

—the biggest time-and labor-savers for seeding and cultivating.

Why worry along with slow out-of-date implements and meagre results? Planet Jr. tools are far more economical —they do 3 to 6 times the work, get bigger, better crops and outlast several ordinary implements. Fully guaranteed. **No. 3 Planet Jr. Hill and Drill Seeder** is a popular seed-sower at a moderate price. Sows all garden seeds in hills or drills. A favorite with seedsmen, truckers, onion-growers and large gardeners. Sows accurately in a narrow line, making wheel-hoe cultivation easy.



Planet Jr. Five-Row Combined Spot and Drill Marker is particularly useful for seed farms, market-gardeners or vegetable growers. Adapted for onion sets, beets, leeks, etc., and celery, cabbage, strawberry and lettuce plants. Wheels can be quickly adjusted to mark rows of different distances apart, and the steel-pointed plugs in the rims can be readily changed to mark spots 3 to 48 inches apart. New Slide Hoe for onion growers $2.50.

New 72-page Catalog FREE!
(184 illustrations)
Describes over 70 tools, including 12 entirely new ones and improvements to our Seeders, Wheel-Hoes, Horse-Hoes, Harrows, Orchard-, Beet-and Pivot-wheel Riding Cultivators
Write postal for it to-day.

S. L. Allen & Co.,

Box 1208-V, PHILADELPHIA

67th Year *67th Year*

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To our Customers and Friends

We wish to notify the Public that we will continue in active business, prepared to fill all orders promptly and carefully with

High Grade Nursery Stock

For Spring we can offer very attractive prices on Peach, Apple, Kieffer Pear, Asparagus, Privet and a general line of Shade and Ornamental Trees; an extra fine lot of 1 year Planes, Silver Maples and Privet for transplanting.

Send us your WANT LIST and do not place your orders without getting our prices.

Franklin Davis Nursery Co.

Wm. F. Stone, Trustee
BALTIMORE, MD.

August Rolker & Sons

are the sole American Agents for

LEVAVASSEUR & SONS
Ussy and Orleans, France

Wholesale Growers and Exporters of

Fruit and Ornamental Stocks, Evergreens, Herbaceous plants, Roses, Manetti, etc. Largest shippers to America.

M. GIELEN NURSERIES,
Oudenbosch, Holland.

Extensive growers of FOREST, AVENUE, and ORNAMENTAL Trees and Shrubs, Evergreens, HARDY ROSES, Etc.

W. KEESSEN Jr. & ZONEN,
Terra Nova Nurseries, Aalsmeer, Holland

SPECIALISTS IN BOXWOOD of all shapes, also TOPIARY clipped forms, MAGNOLIAS, hardy AZALEAS, RHODODENDRONS, Etc.

IMPORT ORDERS for FALL DELIVERY
are booked now for BULBS from JAPAN, HOLLAND, FRANCE; BAY TREES from BELGIUM,
Prime RAFFIA furnished in original bale lots; and other Nursery and Greenhouse Supplies

CUSTOM HOUSE BUSINESS
and reforwarding promptly attended to.
Address for lists and further detail:

P. O. Box 752 New York
or 51 Barclay St.

FOREST
SEEDLINGS

Trees and Ornamental Shrubs

A complete line of Altheas, Berberry, Calycanthus, Cornus stolonifera, Deutzias Forsythias, Privets, Laurus Benzoin, Spireas, Weigelias, Maples, Chestnuts, Red Buds, Hack Berry, Persimons, Elms, Poplars, American Beech, Japan Walnuts, Butternuts, Etc.

Trade List Now Ready
Ask for same

Forest Nursery and Seed Company
McMinnville, - - - Tenn.

There
May
Be

FINER
EVERGREENS

Than
Ours
But We Doubt It.

And
You Never Bought
Cheaper
Ones.

Rhinelander Nursery Co.

Rhinelander, Wis.

The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

Stark Bros. Nursery & Orchards Co.

LOUISIANA, MO.

For Spring, 1916

We mention a few items of our large and complete stock that may prove of interest. Let us hear from you as to your needs.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Norway Maples, 2-inch caliper and up. California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Also, a large and complete assortment of Ornamental Trees and Flowering Shrubs. Among our large stock of Fruit Trees, we call especial attention to our surplus of

10,000 Kieffer Pears, 2 and 3 years
20,000 Stayman's Winesap Apples, 11-16 in. and up
10,000 Downing Gooseberries, 2 years, No. 1
200,000 Apples, 2-year buds, fine

HOOPES, BRO. & THOMAS COMPANY

Maple Avenue Nurseries

Established 1853 — West Chester, Pa.

Philadelphia Office:
222-3-4-5 Stephen Girard Bldg. — 21 So. Twelfth St.



P. D. Berry, Wholesale Nurseryman, is offering for Spring 1916

In Storage, can ship any time

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, California Privets, Barberry THUNBERGII, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

Quotations furnished by letter.

P. D. BERRY,

Dayton, - Ohio

Cherry Trees

We offer for sale our usual supply of strictly first-class one year and two year

Cherries

Mahaleb or Mazzard roots

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SURPLUS STOCK. Yes; there is some. I have a line on some good items that I can sell in quantity at interesting prices, because I have have no brush-heap; I buy only what I sell, know what, where and how to buy, and I have no big overhead expense. And you save it in the price, plus quality, without which I wouldn't try to talk to you. If inclined to buy now or later, write me; costs a stamp, saves dollars.

F. DELAUNAY,

Angers, - - France.

Seedlings and Stocks for Nursery Planting. Write my Agent, JOHN WATSON, Newark, New York, for prices and any information.

JOHN WATSON

NURSERYMAN

NEWARK - - - - NEW YORK

February 1, 1916.

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FOR GROWERS AND DEALERS IN NURSERY STOCK

The National Nurseryman Publishing Co., Incorporated

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Quercus Suber, Cork Oak.

QUERCUS SUBER

The subject of our illustration is a very fine specimen of *Quercus Suber,* Cork Oak. The bark of this tree furnishes the cork of commeree.

This particular tree is growing on private grounds at Rockingham, North Carolina, and originally came from Spain. It is a magnificent specimen and is evidently quite at home.

Like the Live Oak, so common in the Southern States, it is evergreen, but is quite distinct; perhaps the most striking feature is the thick, deeply furrowed spongy bark, which gives the trunk a very massive and attractive appearanee.

According to Bailey's Cyclopedia it is much cultivated in California, where it thrives well.

A very similar species is *Quercus occidentalis*, which differs only in having its fruit ripen the second year and being much more hardy; its bark is not distinguished commercially from the true Cork Oak.

WHITE PINE BLISTER RUST

Hearing Before the Federal Horticultural Board. Nursery Inspectors and Nurserymen protest against the proposed quarantining of New Hampshire, Vermont, Massachusetts, Connecticut, New York and Pennsylvania.

THE public hearing on the proposition to forbid the importation into the United States, of all species and varieties of the genera *Ribes* (currants) and *Grossularia* (gooseberries) and the quarantining of the states of New Hampshire, Vermont, Massachusetts, Connecticut, New York and Pennsylvania, thereby preventing the movement from these states to the other states, of five-leaved pines and black currants, was held before the Federal Horticultural Board, Washington, D. C., on February 4th.

The proposition caused a strong protest from the nursery inspectors and nurserymen of the states affected. The Legislative Committee of the American Association of Nurserymen was represented by its Attorney, Curtis Nye Smith and Thomas B. Meehan and Wilmer W. Hoopes. William Pitkin, chairman of the Committee, was unable to be present on account of other business engagements. Prof. F. C. Stewart of the Geneva New York Experiment Station, Prof. Pettis, of the New York State Conservation Commission, Dr. Rankin, of the Forestry Division of New York, George C. Atwood, New York State Nursery Inspector, Theo. J. Smith, Geneva, New York, Harlan P. Kelsey, Salem, Mass., representing the New England Nurserymen's Association, Dr. H. T. Fernald, State Entomologist, Massachusetts, Theo. F. Borst, of the American Forestry Company, Mass., Dr. R. C. Hawley, of the North Eastern Forestry Company, Conn., William Warner Harper, President Pennsylvania Nurserymen's Association, Francis Windle, Assistant to Nursery Inspector, Pennsylvania, L. C. Bobbink, Rutherford, New Jersey and many others interested in the subject.

At the opening of the hearing a paper was read by Mr. Earl H. Clapp, representing the Forestry Service, whose statements and arguments were endorsed and augmented by Dr. Perley Spaulding, Pathologist of the Department of Agriculture

It was stated that the value of the Pine timber, liable to infection from the spread of the disease, amounted to approximately $411,000,000. It is claimed that the White Pine Blister Rust is such a serious disease and that conditions are so favorable, that it is very liable to spread throughout the entire area inhabited by the White Pine, and not only that, but it is also known to attáek the Sugar pine of the Pacific Coast, the Western White pine of the Northern Rocky Mountain region and the Lumber Pine of the Rocky Mountains.

It was further stated that the Rust has been discovered in the various states it is proposed to quarantine, and that apparently the only way to stop its spread is to stop shipments of pine seedlings and black currants from the infected sections, and by destroying infected pine trees, currants and gooseberry bushes in these infected areas.

It has been determined by experiments and investigations, that the currant and particularly the black currant and gooseberries act only as an agency in carrying the disease. The spores of the Blister Rust spread from infected pine trees to the leaves of the currant and gooseberries, they become established there, and when they develop, the spores are dissiminated from the currant and gooseberries to the pines. The currants and gooseberries are not harmed in any way by this infection, and all danger of the disease spreading from them is past when the currant and gooseberry leaves are dead in the fall. The spores are distributed from the leaves of the currants and gooseberries to the pines by the wind.

The disease was introduced through the importations of large quantities of pines from an infected district in Germany, some of this importation going to nurseries in this country, but the greater part of them being used directly in forestry plantations.

The discussion which followed, and lasted throughout the entire day, was very spirited, and at times exciting. It was taken part in by very nearly every one present, including Dr. Marlatt, Chairman, Prof. Orton, Dr. Sudworth, and other members of the Federal Horticultural Board, Dr. Perley Spaulding, Pathologist, and other representatives of the Forestry Division of the Department of Agriculture.

It was shown, and admitted, by the Department representatives that while the disease had been found in a very few nurseries in the past few years, it had been cleaned up, and no new developments in the nurseries had been discovered. In New York it had been found only in sixteen localities, and mainly in private forestry plantations. In Pennsylvania, it had been found in two nurseries. One tree only in one of them, so pronounced, and no further known developments since. The other nursery, where infected white pine trees imported from Germany, were found, destroyed all these trees, and no re-infection has been discovered there. No infection of ribes (currants or gooseberries) has been found in or near either of these nurseries, whereby the disease could be spread.

The opposition to the proposed quarantine were emphatic in their protest, that as it was shown that the nurseries infected, was a thing of the past, and that no recent cases had been discovered, it was fair to assume that the disease had been eradicated from these nurseries and consequently it was unfair to saddle the responsibility on the nurserymen and prohibit the shipment of pines and black currants from the states which it was proposed to quarantine.

It was admitted that action was necessary by the Federal Board, but it was argued that such measures should

be taken to suppress the disease in the private plantations and prevent its spread from such sources of infection.

The discussion brought out the fact that the Department had found the disease in Ohio, Indiana, Illinois and Michigan, that it has been cleaned out in the nurseries in which it had been found in these states, and that as far as was known, the infection had not reappeared, nevertheless, the Department admitted that they had received no recent information on this point.

The nurserymen argued that it was unfair to quarantine the nurseries of New Hampshire, Vermont, Massachusetts, Connecticut, New York and Pennsylvania, preventing the shipment of pines and currants, yet allowing the nurseries of other states to ship their stock into the quarantined states, especially so, when some of the unquarantined states had been known to be infected in recent years. It was suggested to the Board that if the quarantine was extended to cover all states east of the Mississippi River, the hardship of such quarantine to the nurserymen would be greatly lessened, and the scope of the work of the Forestry Department would be more far reaching and probably prove more effective.

The Board will now take the matter under advisement and announce the decisions later.

THE MOVING OF LARGE TREES

By Stephen Hoyt's Sons Co.

WHILE the large tree planting has been done in the past years, and is being done much more extensively now than ever before, it has not been taken up by the nurseryman to any extent, but is more often left to the local contractor. The result of this work in many instances has been more failures than successes, and the cause is lack of knowledge of what the tree requires.

Nurserymen as a general rule do not handle trees over 4 to 6 inches in diameter, and many of them do not go as high as that.

One reason for this is, the demand does not warrant their equipping themselves to handle the work profitably, as shipping by rail is limited, there is only a local demand, and if the nurseryman is not equipped to move large trees, the work is given to a local contractor who very often knows little about planting.

The results are often very unsatisfactory, no judgment being used at all in taking up and planting trees of large size. They are moved either with or without a ball of earth, and in many cases the tree or trees are not well proportioned either to root or top, and often just rolled into a hole and covered up.

If the mover is a nurseryman he has a better knowledge of the situation and if properly equipped is much better fitted to handle the trees properly and instruct as to their proper care after being planted.



A 12-inch NorwayMaple with 10 foot fall just coming up. Notice the platform in front to receive it.
Stephen Hoyt's Sons Co., New Canaan, Conn.

There is always a risk in moving large trees but if properly done it is reduced to a minimum.

Planting trees from eight to fifteen inches in diameter is being done more and more successfully each year, and while sometimes there are failures, if proper proportions, with trimming and care after planting, the loss is no greater than with smaller trees, it is simply a question of doing the work properly. I have given a few illustrations to show the methods and the way we handle the work.

Trees of large size in most cases are gathered from the surrounding country. The nurserymen do not grow them as large, and as they have never been transplanted results are harder to get. In this case if properly root pruned in advance, it will add greatly to the success.

Then comes the handling, and here we have given a few illustrations which we are working out successfully.

The proportions to go by in a general way, is one foot of ball to every inch in diameter of tree, although they can be varied somewhat up to fifteen inch, and trees of a larger diameter can still be sustained by this size ball, if pruned and cared for, but trees of twenty-four inch diameter and over, should be moved upright, but trees in sizes that I have stated are trees that are intended for this rule, and can be laid over and carted.

In moving trees of this size, in order to have good results, one should have special appliances for doing it, also to preserve and protect the tree from getting broken, and while the earth is combed out in many cases, it is advisable to take as much earth as possible to protect the roots from exposure to sun and wind. This makes a very weighty proposition and necessitates machinery for just that purpose, but if done in these proportions, results are very satisfactory.

Planting the tree is as essential as moving it properly, and when the hole is dug, it should be dug large and deep, then filled with good rich soil adapted to the tree and planted as high as possible to the surface that it may get re-established and the roots get near the surface. The extra size hole with a sufficient amount of good soil sustains the tree until it gets properly rooted.

Furthermore it should have moisture and as it is necessary that this must come from within a smaller radius than it had previously, two-foot tiles should be put in perpendicularly around the ball, so that water can be run into these at intervals, to supply the bottom roots if necessary, by giving moisture to the trees for a certain time they will better respond to the care and thrive.

Trees differ as to when they should be moved, but in many instances failures are caused more from not having the knowledge of knowing how to do the work.



Showing the care of the fibrous roots necessary to the successful moving of large trees. Stephen Hoyt's Sons Co., New Canaan, Conn.

NEWS FOR NURSERYMEN

Nurserymen everywhere are reminded that the forty-first annual convention of the American Association will be held in Milwaukee, Wis., June 28th, 29th and 30th.

Unusual interest attaches to this announcement. At the Detroit meeting last year a new constitution was adopted, the object sought being to enhance the value of the organization to members by the larger scope given to its activities, embracing increased benefits to members, not the least of which will be a more zealous and enthusiastic publicity of nursery products, resulting in a greater volume of business and better profits. In fact the American Association of Nurserymen as it exists to-day under the reconstruction plan decided upon at the Detroit meeting occupies an unique position before the trade, and it is evident that the men whom the Association expects to retain or to secure as new members will think more of their membership because of the action referred to.

A very comprehensive article, written by J. R. Mayhew, enswering the question "Why I Should Retain my Membership in the American Association of Nurserymen?" appeared in the January issue of the "National Nurseryman," and sets forth in simple but convincing language the claims of the Association upon every reputable nurseryman in the United States.

Those seeking fuller information as to benefits and terms of membership are asked to communicate with Secretary John Hall, 204 Granite Building, Rochester, N. Y.

The Milwaukee convention will be a very business-like assembly, with a program of high merit.

Berrydale Gardens, San Jose, California, are offering a new berry in the name of New Macatawa Everbearing Blackberry. They claim that it is a continual fruiter, spring, summer and fall. The fruit is large, uniform in size, jet black, oblong, with no core, and very slightly seeded and is an excellent shipper. It is good for canning, dessert, jams, jellies, juice and wine. It is also an upright, self branching grower and needs no support.

EARLY SPRING FLOWERING SHRUBS AND TREES AT ARNOLD ARBORETUM

Native and Exotic Early Spring Flowering Trees and Shrubs. It is interesting to note that our gardens depend almost entirely on foreign trees and shrubs for their greatest beauty in early spring. To this general statement, however, there are a few exceptions. The Red Maples, *Acer rubrum,* will soon be a mass of red flowers, while the Norway Maple (*Acer platanoides*) will be opening its bright yellow flowers, which will make these trees very conspicuous. Two interesting native shrubs, too, the Spice Bush (*Benzoin aestivale,* sometimes called *Lindera Benzoin*), and the Leatherwood (*Dirca palustris*), have been covered for several days with their small bright yellow flowers which appear before or with the unfolding of the leaves. There are large groups of these plants on the right hand side of the Bussey Hill Road, opposite the upper end of the Lilac Group. Not very often cultivated they deserve a place in every spring garden. Among early-flowering American plants is also to be mentioned the Shad Bush of the Southern states, *Amelanchier canadensis.* This is the largest and earliest flowering of the whole genus, and is often a tree of considerable size. It is now in flower on the left-hand side of the Meadow Road, entering from the Jamaica Plain Gate, where the general collection of these plants has been arranged. In another week the Arboretum will be gay with the flowers of the Shad Bushes, for these plants have been largely used in the mixed plantation along the drives. With these few exceptions, however, the shrubs which make the greatest show here in the early spring, the Magnolias, Forsythias, Cherries, Peaches, Apples, Pears, Azaleas, Honeysuckles, Lilacs and Berberis are from the Old World.



Moving a 12-inch Maple. Notice the compact ball, and careful preservation of fibrous roots. Stephen Hoyt's Sons Co., New Canaan, Conn.

Magnolias. The earliest of the Magnolias, is *M. stellata.* This is a perfectly hardy, vigorous, wide-spreading shrub and an inhabitant of the mountain slopes of southern Japan. Like the other early-flowering Magnolias, it belongs to that section of the genus in which the flowers appear before the leaves. There is a variety of this plant with pale pink flowers. The flowers of another Japanese species, *Magnolia kobus,* and its variety *borealis,* appear soon after those of *M. stellata.* The species is a large, irregular growing shrub and is inferior in size and habit to its variety which is a tall and shapely tree with larger flowers. These plants rarely flower freely in this climate and now carry fewer flowers than they did a year ago, and as flowering plants are inferior to the Chinese species and their hybrids which are also in flower. The best known of these Chinese Magnolias is the white-flowered *M. denudata,* better known in gardens as *M. conspicua* or as *M. Yulan.* This is one of the handsomest and hardiest of the spring-flowering trees which are hardy in eastern New England, producing freely every year its large tulip-shaped blossoms which usually escape injury from late frosts, by which the flowers of *M. stellata* are often discolored. There are a number of hybrids between *M. denudata* and *M. liliflora,* usually known as *M. obovata* or as *M. purpurea.* These hybrids all have flowers more or less deeply tinged or streaked with rose and bloom a little later than *M. denudata. M. Soulangeana* is the best known of these hybrids, but there are several others which are equally beautiful. These plants are near the Administration Building at the Jamaica Plain entrance.

Asiatic Cherries. April is one of the most interesting months of the whole year in the Arboretum for several of

the Chinese and Japanese Cherries are in flower. The first of these plants to open its flowers, *Prunus tomentosa,* is a native of northern and western China. It is an old inhabitant of the Arboretum, although at this time larger plants can be seen along the Francis Parkman Road in Jamaica Plain, in the Boston Park System, than are now to be found in the Arboretum. It is a large, wide-spreading and perfectly hardy shrub; the flowers open from pink buds as the leaves begin to unfold, and the bright red flower-stalks and calyx make a charming contrast with the white petals. The small fruit ripens in June and is scarlet, slightly hairy, sweet and of good flavor. The hardiness and the ability of this shrub to florish in a dry climate makes it valuable in cold regions like the Dakotas, and it is not impossible that it will in time be made valuable for its fruit which is as large and of as good flavor as that of the wild Cherries of Europe, from which the best garden cherries have been developed. Even more beautiful as a flowering plant is another shrub from northern China, *Prunus triloba.* This has flowers of the purest pink and is hardy and free flowering. Apparently first cultivated in the Arboretum, where seeds were received more than thirty years ago from Dr. Bretschneider, then at Peking, it has never become common in gardens, although the less desirable form with double flowers (var *plena*) is to be found in most collections of hardy shrubs. This blooms a little later than the single-flowered plant from which it was derived long ago in China. Three Japanese Cherries are in bloom, *Prunus Sargentii, P. pendula,* and *P. subhirtella.* The first is believed by those who have seen the most of these plants to be the handsomest of the Cherry trees. It is a large tree with lustrous reddish bark and broad pink or rose-colored flowers which appear before the leaves; these are of good size, deep green and lustrous, and in the autumn turn to shades of crimson or yellow. The fruit ripens in June and is the size of a pea, bright red when fully grown and black and shining at maturity. This was once a common tree in the forests of northern Hondo and of Hokaido and ranging northward into Saghalin. The large specimens have now nearly all been cut for the valuable wood which this tree produces. Last year, however, Mr. Wilson found at Koganei, near Tokyo, an avenue of this tree three miles long which had been planted in 1735. Some of these trees are from sixty to seventy-five feet tall, with trunks from nine to thirteen feet round and heads thirty or fifty feet through. Several double-flowered varieties of this tree, cultivated in Japan have recently been brought to the Arboretum by Mr. Wilson and promise new beauties for the spring gardens of the United States and Europe. *Prunus Sargentii* has proved in Japan the best stock on which to graft all the Japanese double-flowered Cherries, and in this country it may prove more valuable for the propagation of the European garden Cherries than the stock usually used for this purpose. The flowers, unfortunately, retain their beauty for only a short time and by the end of the week the petals will no doubt be falling. *Prunus pendula* is a better known plant in American gardens, into which it was introduced from Japan several years ago. Seedlings of this form with pendulous branches often retain this habit, but sometimes seedlings appear with more erect and spreading branches, indicating that it has probably descended from a tree of different habit. The third of these species, *Prunus subhirtella,* is rather a large shrub than a tree. The flowers, which are borne in the greatest profusion, are similar to those of *P. pendula,* but the branches are erect. This when in flower is certainly one of the most beautiful of the whole group. Very generally and widely cultivated in Japanese gardens, *Prunus subhirtella* is not known anywhere in a wild state. The collection of Cherries is on the right-hand side of the road entering by the Forest Hills Gate.



8-inch Norway Maple being moved 17 miles in full leaf. The auto takes the place of 5 teams when used on hilly roads. Stephen Hoyt's Sons Co., New Canaan, Conn.

Forsythias. The handsomest of these plants is a hybrid between two of these species, *Forsythia suspensa Fortunei* and *F. viridissima,* known as *F. intermedia.* There are several forms of this hybrid. The one called

F. intermedia primulina, with pale canary yellow flowers, a seedling which sprang up spontaneously in the Arboretum a few years ago, is one of the most beautiful of these hybrid forms. *F. europaea,* a vigorous hardy plant with erect branches, is perhaps less beautiful in flower than the Chinese species but is interesting as an European representative of a genus otherwise confined to China and Korea. There is a collection of Forsythias in the Shrub Collection and a large mass of them at the lower end of the Bussey Hill Road.

Azaleas. The first of these plants to flower is *Rhododendron mucronulatum* (all the Azaleas are now called Rhododendrons). It is a tall, perfectly hardy, erect shrub with erect slender branches. The flowers are rose color and appear before the leaves. It has been in the Arboretum for more than thirty years but has not before flowered so freely as it has this spring. There is a large group of these plants on the lower side of Azalea Path, and although the flowers are beginning to fade it is well worth an early visit. Another Azalea from northeastern Asia, *Rhododendron dahuricum,* with rather smaller, darker colored flowers than the last to which it is closely related, has never flowered so well before in the Arboretum. There is a group of these plants on the upper side of Azalea Path.

TENTH ANNUAL MEETING OF THE CONNECTICUT ASSOCIATION

The tenth annual meeting of the Connecticut Nurserymen's Association was held at Hotel Garde, Hartford, Conn., February 18, 1916. Meeting called to order at 11.25 a. m. with President W. E. Campbell presiding. After the President's address of welcome had been responded to, minutes of the last meeting were read and approved. The report of the Treasurer showing the financial condition of the Association to be in first-class shape was rendered, his books audited and report accepted. The report of the standing committee showed that nothing had come up during the year to cause them any great annoyance, or much work.

No new business being brought before the Association, we opened under the applications for membership. Mr. F. B. Kelly, of Manchester was proposed, ballot being spread, he was elected to membership. Under election of officers, Mr. W. E. Campbell, of Elm City Nursery Co., New Haven, was re-elected president; Mr. F. S. Baker, of New Haven, was elected vice-president; Mr. F. L. Thomas, Gen. Manager of the Pequod Nursery Co., Meriden, was re-elected secretary; W. W. Hunt, of Blue Hills Nursery, Hartford, re-elected treasurer. Adjourned for dinner.

Meeting again called to order at 2.15 p. m., when the following program of entertainment and instruction was carried out. Address by W. W. McCartney, "Standardization of Nursery Stock;" address by Prof. Ralph C. Hawley, "Results of Our Appearing Before the Federal Board in Washintgon, D. C.;" address by J. R. Barnes, "Possibilities of Machinery for Reducing Cost of Labor in the Nursery Business;" address by Dr. George P. Clinton, "Heteroecious Rusts Found in Connecticut Nurseries;" address by Stephen Hoyt, "Is the Motor Truck Practical for our Business;" address by Dr. W. E. Britton, "The Problem of Inspection Quarantine."

We were disappointed that two of our expected guests and speakers were unable to be present, viz: Mr. Alex. Cumming, Jr., Cromwell, who was to speak on "Commercial Handling of Roses," and W. B. Hatch, who was to speak on "Suggestions From an Experienced Landscape Gardener." All speakers were applauded and answered many questions relative to their subjects in hand.

The President made the following appointments: Standing Committees for year 1916. Legislative, F. E. Coe, New Haven, chairman; Stephen Hoyt, New Canaan, J. R. Barnes, Yalesville. Executive, W. W. McCartney, New Haven, chairman; Gustave Minge, Hartford, F. S. Baker, New Haven. Entertainment, Paul M. Hubbard, Bristol, chairman; Charles Turner, Hartford; E. A. Brassill, Hartford. Meeting adjourned at 4.20 p. m.

HOW TO CONTROL FRUIT-TREE LEAF ROLLER

From New York State College of Agriculture at Cornell University.

A comparatively new pest in the orchards of the State is the fruit-tree leaf roller, according to the entomologists of the New York state college of agriculture, who have just issued a bulletin on the subject.

The insect was first discovered in this state in injurious numbers in a Genesee county orchard, and has since appeared in Monroe county in great numbers, and less abundantly in other localities. The pest is very erratic in its distribution, and is likely to appear in widely separated places. Apples, pears, plums, cherries, and, to a lesser extent, peaches, are liable to injury from its ravages.

The college authorities state that the leaf roller is difficult to control because of its habit of hiding in the opening buds or in rolled leaves. Experiments show that the eggs of the leaf roller are susceptible to the effect of miscible oils, which, when thoroughly applied, have destroyed from 74 to 92 per cent. of the eggs. The oils should be applied in the spring at the active growing period of the tree but always before the buds burst, and a spray of 1 gallon of the oils to 15 gallons of water is recommended, the spraying to be done on a day when the temperature is above freezing. The authorities state that only one application is necessary.

Further information concerning spraying and the materials to be used is given in the bulletin, a copy of which may be obtained on application to the New York state college of agriculture at Ithaca, New York.

The proceedings of the 26th annual meeting of the Western Association of Nurserymen, which was held December 8th, 9th, 1915, at Kansas City, Missouri, is being distributed among the members.

It is a closely printed book of 60 pages and contains much valuable information.

T. S. Hubbard Company, Fredonia, New York, have just issued their anniversary number and wholesale price list, having been in business for fifty years.

This firm claims to have the largest stock of grape vines and small fruits in the country, with every facility in the way of concrete storage cellars and packing houses to fill orders promptly and in the most efficient manner.

The National Nurseryman

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Editor .....ERNEST HEMMING, Flourtown, Pa.

The leading trade journal issued for Growers and Dealers in Nursery Stocks of all kinds. It circulates throughout the United States, Canada and Europe.

Official Journal of American Association of Nurserymen

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900

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Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested by the Business Manager, Rochester, N. Y.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

Entered in the Post Office at Rochester, N. Y., as second-class matter.

Rochester, N. Y., March, 1916.

THE PROPOSED QUARANTINE ON THE WHITE PINE BLISTER RUST

According to the report of the hearing before the Federal Horticultural Board held at Washington, to show cause why the Quarantine should not be put into effect, there is little evidence to show why it should have been proposed at all.

If the White Pine Blister Rust is as dangerous a disease as claimed and realizing the immense value of the Pine timber, to say nothing of the aesthetic value and beauty of the tree, the proposed quarantine on a few kinds of plants in a few states seems like a childish proposition, when such vast interests are at stake.

To prohibit the movement of nursery stock which is under constant care and inspection without being able to control private plantations, forests, wild plants, birds and wind, seems a futile effort that only works a hardship on the nurseryman.

Broadly speaking nurseries are less responsible for the spread of plant diseases than any other vehicle, due to present system of inspection and to the fact that the nurseryman's bread and butter depends upon keeping them clean.

Nurseries are well under government control and any nurseryman failing to live up to his responsibilities should be promptly made to do so or get out of business. If the Federal Horticultural Board would fully realize this it would find the nusseryman more in sympathy with its efforts, because to no one more than the nurseryman is the control and eradication of diseases and pests more vital.

Whole-hearted co-operation between the Federal Horticultural Board and nurserymen will do more than ill considered or experimental quarantine. Antagonism will make efforts largely null and void. Bugs and disease wil not obey the law.

If the proposed quarantine is essential to the control of the disease, then the nurseryman with a large investment should be shown that his loss is for the public good. He is hardly likely to submit gracefully to a quarantine in political division of territory. Because his nursery happens to be within a certain state he is forbidden to ship, while his neighbor over the line has no such restriction and potentially just as likely to spread the disease.

There is serious doubt if currant and gooseberry nursery stock as handled will spread the disease. It is not proven that the blister rust lives over in the wood of currants and gooseberries, according to Dr. Spalding it is only on the leaves, and nursery stocks are not shipped while in leaf and from all accounts the disease is so readily recognized while on these plants that it would be an easy matter for the inspector to have such stocks promptly destroyed, especially if subject pines are in the locality.

The same authority states the process of incubation of the spores after they have been transferred from the currants and gooseberries to the pine, according to Dr. Spalding, is six years. This suggests the one real difficulty of controlling the disease and a quarantine may be necessary to prevent the movement of white pine from any source whatever for the maximum period.

The fact that the Blister Rust cannot be transferred from one pine tree to another except via the genus Ribes readily suggests a means of control much more effective than quarantining a portion of the nurseries in the United States of which it is by no means proved are even likely to spread the disease.

ABBREVIATIONS OF LATIN NAMES

Warren H. Manning submitted a short reprint of a list of botanical names with abbreviations, which indicates that before long there will be at the disposal of nurserymen a standard work of this kind, which no doubt will to a greater or lesser extent be adopted and used.

To anyone who has to write the lengthy Latin names many times over it will be a great relief to have a recognized abbreviation.

The greatest danger perhaps will be in attempting too much at the start. While it is necessary to compile a very complete list in the beginning for reference, for nurserymen to attempt to adopt them in a wholesale manner is likely to give him much more labor than writing the names out in full, as constant reference will have to be made to know exactly what they stand for.

The idea is in use in many landscape offices and will be adopted by the American Society of Landscape Architects, so that no doubt in time the nurseryman must expect to receive lists of abbreviated names for quotations.

THE NURSERYMAN AS KING

Editor "National Nurseryman,"

I find the above topic for discussion before the Minnesota State Horticultural Society at its recent meeting. (and published in the January issue of the "National Nurseryman"). I did not attend this meeting, therefore do not know what was said on this subject, which strikes me as amusing. I do not see from what point of view the nurseryman could possibly be compared to a

king. I cannot imagine any man laboring harder with his head and his hands than the nurseryman. I cannot recall any business in which there is so little actual profit as in the nursery business. This fact is proved by the experience of nurserymen all over the country, most of whom are poor men. There are fewer millionaires among nurserymen than among any other class of business men so far as I know. I can recall only one nurseryman who may be classed as worth a million dollars. I doubt if this man is worth half a million, but however large his estate may be, it was built up rather on the profits of real estate than on the profits accruing from the sale of plants, trees and vines.

One reason why the nursery business is not more profitable is the perishable nature of the plants, vines and trees that the nurseryman produces. If the dealer in shoes or in clothing should be required to burn all of his goods not sold at the end of the year he would be placed somewhat in the position of the nurseryman. The planters of trees, etc., are fickle. The nurseryman may find a large demand for certain varieties of fruits this year, which may lead him to plant largely of those varieties next year, but the fickle public has meanwhile changed its plans and demands something which the nurseryman does not have. What a sad sight to see thrown upon the brush pile and burned beautiful trees which should have been sold at a fair profit.

CHARLES A. GREEN.

We enjoy the monthly visits of the "National Nurseryman" very much and obtain a lot of help from its columns.

Sincerely yours,
THE GARDNER NURSERY COMPANY.

Editor "National Nurseryman":—

That was a good article by A. C. Hanson, of the Hawks Nursery Co., Wauwatosa, Wis., as published in your January issue.

The sending of trade price lists and selling at even lower prices than those quoted in the trade lists to farmers and planters has about ruined the business.

The advertising in farm papers and magazines of fruit trees at two cents and up is all wrong. Such stock should be burned up. If only the best grade was sold at a profit to the grower, it would be better both for the nurseryman and planter.

Yours truly,
J. L. HILLMAN.

Editor "National Nurseryman,"
Dear Sir:—

In line with your editorial endorsement of distinctive planting for communities; I may mention that "our town" on the main line of the Pennsylvania Railroad, Narberth, Pa., has adopted the variety of cherry, known as the Japanese, as official town-tree or flower, the Civic Association of Narberth has endorsed this tree and the weekly paper published by the local Civic Association gives almost every week space, little write-ups on that subject. Cynwyd-Bala Neighborhood Club will in all probability endorse the "flowering apples" for lawn planting and the Japanese pink cherry for street planting; the two to be officially endorsed at the next monthly meeting.

Merion on the Main Line, another Philadelphia suburb, plants white and pink dogwood, pink horse chestnut. The local nurseries keep a large stock, the "Garden Nurseries" in Narberth, a small nursery of about 15 acres carries a large stock of flowering trees, considering the size of the nursery, they have in stock over 3000 such trees and expect to sell them in one season.

A. E. WOHLERT, *Landscape Architect*,
Narberth, Pa.

New York, February 11th, 1916.
Editor, "National Nurseryman,"
Flourtown, Pa.

Dear Sir:—

Referring to your editorial in the February issue of National Nurseryman on the proposed quarantine on Ribes, I disagree with you entirely in the conclusion drawn. First, that I do not believe a quarantine is useless unless it is absolutely effective. If it is partly effective it is better than having none at all. The nature of the Blister Rust is of such a character that it would be impossible to tell by examination extending over only one year of plantation of Ribes whether that plantation was entirely free from the disease and I believe it is therefore better to absolutely prohibit the growing of this plant until we are thoroughly advised as to the extent of the disease and the liability of the different varieties to take and carry. I believe that in a long run it will prove wise to severely limit the growing and selling of the different varieties of currants than run the risk of destroying our White Pine lumber industry and also make it impossible for nurserymen to grow and sell White Pine for ornamental purposes. The White Pine is in all probability one of the most beautiful evergreens in existence, and I deem that no methods are too severe if they will result in its salvation.

Very truly yours,
GARFIELD WILLIAMSON.



Business Movements.

John Watson, Newark, New York, has taken the agency for the United States and Canada, for S. Spooner & Sons, Nurserymen, of Hounslow, England, specialists in Manetti rose stocks, gooseberries, currants, trained fruit-trees, roses, rhododendrons, etc. They are an old and well-known firm, established in 1820. He has handled a great deal of stock from them in past years, and visited their nurseries, so has every confidence in the quality of their stock and business methods, giving full satisfaction to customers.

A NEW MEMBER OF THE FIRM OF STARK BROS., NURSERIES AND ORCHARDS CO.

The new member of this well known firm of Stark Bros. Nurseries and Orchards Co., bears the name of John Wingate Stark. "John" is for his great-uncle, Gen. John Stark, of Revolutionary fame. "Wingate" for

a grandfather on his mother's side. Col. Wingate, who also fought in the Revolutionary War.

Lloyd C. Stark, vice president of the company, is largely responsible for the arrival of the new member. While John Wingate only weighs 9 pounds at present, he comes from fighting stock and may be expected to run things, and we hope in the future, to the benefit of the nursery interests at large as well as his own particular firm.

Mr. P. L. Phelps, Scientific Forester and Landscape Artist, Rockford, Illinois, is opening up a nursery and sales yard at Ottumwa, Iowa, for ornamental shrubs and trees grown exclusively for landscape planting.

WOOD BROS. ORNAMENTAL NURSERY CO.

The nursery department of the Griswold Seed Co., of Lincoln, Neb., who recently went into the hands of a receiver, has been purchased by the Wood Brothers Silo under the name of the Wood Brothers Ornamental Nursery Co., at Lincoln, Neb.

Obituary.



CAPT. CHARLES L. WATROUS.

Capt. Charles L. Watrous, who was the president of the Watrous Nursery Company, of Des Moines, Iowa, died February 9th, at the age of 77 years. Capt. Watrous up until the time of his death was in good health. His death came rather suddenly from an attack of pneumonia.

Born at Freetown, N. Y., he was educated at the Homer Academy, Homer, N. Y., taking his college course at the University of Michigan.

When the Civil war broke out he came home and organized an infantry company. He was severely wounded at the Battle of Bull Run, being mustered out of service as he was unfit physically to again enter the war. When the war was over Capt. Watrous returned to Michigan, where he graduated in law, but due to ill health it was necessary for him to seek an outdoor life. With this idea in view he went to Des Moines in 1869 and started the Des Moines Nursery Company.

Many of the older nurserymen will remember the interest that Capt. Watrous took in the American Association of Nurserymen, of which he was president in 1886-7.

During the time when the advent of the San Jose scale into the country caused so much consternation among the nurserymen and fruit growers, Federal legislation was proposed, but California wanted to make the law so drastic that the Nurserymen's Association opposed the bill. Mr. Watrous was one of the committee that went to Washington to try to prevent its passage. He stayed there six weeks and was largely instrumental in preventing the passage of the bill.

For the last five years he has not been active in the Association, due to his advancing age.

BERNARD SCHRAMM.

Bernard Schramm, Toledo, Ohio, died at his home, January 17th, at the age of 78 years. Of late years Mr. Schramm was connected with the florist business, but at one time was well known in nursery circles as the proprietor of the Humboldt Nursery, Ohio. He was a nephew of Peter Kieffer, the originator of the Kieffer Pear and resided with him when he first came to the country from Stotzheim, Alsace-Lorraine, in 1853.

THE PRAIRIE SPIRIT IN LANDSCAPE GARDENING

Through the writings of Wilhelm Miller we can begin to see the formation of American Landscape Gardening, a style that is truly American, to whom the lamps of Sacrifice, Truth, Power, Beauty, Life, Memory and Obedience can be applied to landscape gardening as John Ruskin did to architecture.

The same inspiration that brought forth "My country 'tis of thee" evidently dominates his work in and for landscape gardening.

The note sounded so plainly in "The Prairie Spirit in Landscape Gardening" is in harmony with the best that is American. It is sweet, clear and honest, simple and good. It encourages no false notes of foreign origin or ostentation of wealth, but a full realization of the beauties of American plants, arranged with art and with the inspiration born of our own prairies and woods.

"The Prairie Spirit in Landscape Gardening" is really circular No. 184 of the Illinois Agricultural Experiment Station, and is free to anyone in Illinois who will sign a promise to do some permanent ornamental planting within a year.

The people of Illinois are to be congratulated. We could hardly expect anything but the best in the way of printing and illustrations from a former editor of "Country Life" and it should convey the Prairie Spirit to the people.

Chapter IX gives a list of native plants and should receive the attention of all nurserymen who grow ornamental plants. A partial list of nurserymen who grow them is also given. It is unfortunate the latter is not more complete or omitted entirely.

FOREIGN REGULATION OF NURSERY-STOCK SALES

LITTLE if any foreign legislation apparently exists relative to guaranties of the genuineness of nursery stock. Reports received from consuls in England, Fance, Germany, Austria, Hungary, the Netherlands, Japan, Australia, and Canada are to the same effect as the following statement regarding the Netherlands.

With reference to the law in this country under which nurserymen are compelled to furnish buyers with trees and plants true to name and the penalty prescribed in the event of misrepresentation, the Netherlands has no special law on this subject, and the obligations of contractors in this particular business are governed by the civil and criminal codes of the country.

Only two countries, Hungary and British Columbia, are reported as having special legislation or regulations relating to sales of nursery stock, and that of British Columbia is directed only against the importation of diseased nursery stock.

No Specific Law in Germany as to Guaranty of Variety.

Consul General Robert P. Skinner reports that there is no special legislation in Germany which applies to careless or intentional deliveries of nursery stock which proves untrue to name. If bad faith were involved in the transaction, the German Civil Code would cover the case, and action would lie for any damage actually sustained. Practically this legislation is of little value in protecting buyers of nursery stock. It requires years, very often, to determine whether or not the species delivered is true to name. In the United States reputable nurserymen sell under a contract to replace trees or purchase money when mistakes are made, and German practice has not gotten much beyond the same system.

The principal German nurserymen are organized as the Union of German Nursery Owners, whose honorary president replies to an inquiry addressed to him on this matter as follows:

There exists in Germany, or, so far as I know, in any European country, no provision of law or regulation according to which nursery owners are obliged to deliver trees or plants with true statements of their names—that is to say, under guaranty as to their variety.

The owners of nurseries of most of the provinces have engaged in a contract with their respective chambers of agriculture, according to which the nurseries give a guaranty for the correctness of the variety of delivered fruit trees.

Specific Regulations in Hungary and British Columbia.

Consul General William Coffin, at Budapest, reports that Hungary has no specific laws or ordinances governing the sale by nurserymen of plants and trees true to name, although vine growers are quite effectively protected by an ordinance issued in 1896 in which the different varieties of grapes are minutely described.

Consul General Robert E. Mansfield, Vancouver, reports that the British Columbia Agricultural Association's act of 1914 provides that "The Lieutenant Governor in Council may make regulations for the inspection and disinfection or destruction thereof of non-fruit-bearing trees or shrubs which may carry contagion. * * * All nursery stock, trees, or plants imported into this Province are subject to inspection at the provincial fumigation station at Vancouver, except in case of palms, fibrous plants grown under glass, conifers, and evergreens."

English General Law of Contracts Applicable.

According to information supplied by the Board of Agriculture and Fisheries, the sale of trees or plants is governed in England by the general law of contracts for the sale of goods, in which connection the Sale of Goods Act, 1893, may be noted. The secretary of the board instances an application of this act in the case of Wallace, Sons, and Wells *v.* Pratt and Haynes (Law Reports, 1911, Appeal Cases, 394), in which the buyer of a quantity of sanfoin seed was held to be entitled to damages as for a breach of warranty. There is no liability under the act to proceedings for a penalty as for a criminal offense. While the Sales of Goods Act follows the general principles of the law of contract, the special provisions relating to warranty and sale by description or sample are especially pertinent to this inquiry and may be summarized as follows:

SEC. 11 (*a*). Where a contract of sale is subject to any condition to be fulfilled by the seller, the buyer * * may elect to treat the breach of such condition as a breach of warranty.

SEC. 13. Where there is a contract for the sale of goods by description there is an implied condition that the goods shall correspond with the description.

SEC. 15. (1). A contract of sale is a contract for sale by sample, where there is a term in the contract, express or implied, to that effect.

(2). In the case of a contract for sale by sample there is an implied condition that the bulk shall correspond with the sample in quality.—*Commerce Reports.*

BULLETINS OF INTEREST TO NURSERYMEN

Pecan Culture; With Special Reference to Propagation and Varieties. By C. A. Reed, Nut Culturist, Office of Horticultural and Pomological Investigations. Pp. 32, figs. 17. Contribution from the Bureau of Plant Industry. January 18, 1916. (Farmers' Bulletin 700.)

The Bagworm, An Injurious Shade-Tree Insect. By L. O. Howard and F. H. Chittenden. Pp. 12, figs. 13. Contribution from the Bureau of Entomology. January 15, 1916. (Farmers' Bulletin 701.)

Cottontail Rabbits in Relation to Trees and Farm Crops. By D. E. Lantz, Assistant Biologist. Pp. 12, figs. 5. Contribution from the Bureau of Biological Survey. January 17, 1916. (Farmers' Bulletin 702.)

Discusses the distribution and habits of cottontail rabbits and methods of controlling their ravages on trees and cultivated crops by means of trapping, poisoning, and supplying safeguards. For general distribution.

TREE SEED REVIEW

By Arthur R. Powell

IN looking back over the past season and considering the subject of tree, shrub and evergreen seeds, we find the season has not been a good one, when compared with past season's crops. I believe I can say that this has been the poorest season for acorns during the last ten years. There was not a good crop of any variety. A few Red Oak acorns were collected in various sections, but they were of such poor quality that the planting of them would have been waste of time.

From the sections where Pin Oaks are collected, reports came in to the effect that the crop was a failure this season. Similar reports came in from other sections regarding *Quercus tinctoria, macrocarpa, robur, prinos, cerris* and numerous other varieties.

Other varieties of deciduous trees and shrubs fruited fairly well, and sufficient quantities are obtainable to supply the demands, which are somewhat light this season on account of the European conflict.

Seeds of coniferous trees were not so plentiful. Early in the season reports from the New England States forecasted the scarcity of *Abies balsamea* and when time came to harvest, no seed could be had. The crop of *Tsuga Canadensis* Hemlock was also a total failure.

In the southern states shortages in the crops of *Pinus palustris* (Yellow Broom Pine) and *Pinus taeda* (Loblolly Pine) were reported. These varieties, however, were obtainable in quantities sufficient to fill orders. They were, however, late in being harvested, as the cones could not be opened on account of wet weather prevalent in the north the past fall.

Reports from Europe this season are not the most satisfactory. The chief trouble there is the difficulty in obtaining labor to collect the seeds.

Only a few days ago I received a recommendation from a leading collector of French Crab seed, advising that they would be forced to cut all orders for French Crab seed 50 per cent. Regarding French Pear they were in hopes of obtaining sufficient quantities to fill all orders in full.

I also received only yesterday a report as to crop from one of the leading German seed merchants, and it embodies considerable information.

In the first place the crop of acorns was practically a failure, there being no crop of either the common or red oaks, the two varieties prevalent in Europe.

The crop of Norway Spruce is also reported short, but seed of the 1914 crop is procurable in small quantities. It is reported to be of good germinating quality.

Reports regarding Larch are also similar to that of Noway Spruce, namely a short crop with year-old seed procurable in small quantities.

An odd report regarding the supply of Beech and Linden seed is received. The entire crop of these varieties has been confiscated for oil production, and no seeds of these trees are procurable. It states that no law has been passd prohibiting the exportation, but conditions at present do not point to any prospects of our being able to import seeds from that country.

The seed business in general this season has been light, as foreign orders are very scarce.

Answers to Correspondents

PRUNING SHRUBS

Please tell me the proper seasons for trimming up Spiraea, Symphoricarpos, Berberis, Azalea, Deutzia, Crape Myrtle, Forsythia, *Hydrangea paniculata,* Viburnum, and Weigela. These shrubs were set out in March last. Should they be cut back severely or only trimmed? Your advice will be appreciated. C. B. H.

It is just a little difficult, without knowing the condition of the plants. With well-established plants one can easily judge of the condition, but in this case recently transplanted stock might vary very much and require different treatment.

General principles will be the safest for us to give you. The best season for trimming any of these shrubs is after they have flowered, removing some or all of the canes or branches that have just flowered, assuming the number of branches remaining are, say, two-thirds of the original number. It is not usually safe to remove more wood and foliage than this during the summer, when plants of course need foliage for existence. If the reduction under such a plan seems too great, do just a little of it to encourage a vigorous growth on the part of the remaining wood, and finish it in the winter, being careful not to remove at the latter period any growth that has just been made, which seems important for the production of flowers the following season, unless flowers may be sacrificed for the good of the plant.

The *Hydrangea paniculata* and the Spiraea, if any of them be summer-flowering varieties, may be very severely pruned in the winter, as flowers will be produced next season on the growth of that season, and you can safely prune away any of the wood during the winter, being assured flowering wood will follow in the spring.

Assuming you received good, bushy plants, it would have been best to have pruned them very severely at the time of planting, in order to get entirely new wood, though sometimes the condition of the plants will necessitate retaining a good portion of the strong, vigorous, young growth. In such event, pruning at this time would be little required, simply thinning out where the branches have grown too thick and bushy and overload the plant.

LLOYD C. STARK ON PREPAREDNESS

Mr. Lloyd C. Stark, vice president of the Stark Bros. Nurseries and Orchards Co., is a former officer of the U. S. Navy, being a graduate of Annapolis and served from 1904 to 1911. He made a study during extensive travels of naval and military conditions and he is emphatic in the belief the United States must prepare at once for the emergency of war.

"A war at this time would be the test of our republican form of government," he said, "and we must prepare at once as a matter of national life insurance.

"We have wasted a year in discussing the possibility of maintaining peaceful relations with other countries. The time seems close at hand when we shall have to protect ourselves."

The Western farmers are not only patriotic but the best

read and most serious minded citizens in the United States.

They will fight to the death to save the nation and protect their families. They no longer heed the well meaning but idiotic political chatter of certain politicians and peace enthusiasts.

"They realize the great danger, and they know they and their sons will have to repel any military invaders."

Mr. Stark scores the theories advaneed by Congressmen and politicians who, he said, know nothing of military tactics, and should allow the War College and the Army and Navy boards to determine upon the proper course. The propaganda must be divorced from politics, he said.

"I am a pacifist at heart myself, just as every good American is, but I do not believe in facing the present crisis without preparation. In my business, which I believe is the most peaceful in the world, I am in constant communication with thousands of farmers, representing the real wealth of the nation."

Mr. Stark has studied conditions in South America, where he went in 1909 with Maj. Gen. Leonard Wood of the United States Army and Admiral Staunton and other naval offieers. He has witnessed also the eonditions in Turkey resulting from the Armenian massaeres.

"In the case of the Armenians," he said, "it was their wealth which caused the attacks by the jealous and less industrious Turks.

"Our wealth is a cause of envy on the part of foreign Powers, and it is partieularly neeessary that we be prepared against aggression from without."—*St. Louis Republican.*

POISON IVY.

Experiments in destroying poison ivy by means of chemieals have developed only a limited field of usefulness for this method. Applieations of strong solutions of erude sulphuric aeid or of erude carbolic aeid have been found effeetive, but serious risks are encountered in handling these substanees. In work undertaken by the Massachusetts Experiment Station, it was found that arsenate of soda could be used very sueeessfully to kill poison ivy on large trees over 6 to 10 inches in diameter and on stone walls, buildings, etc. In open fields, however, this treatment proved expensive and injurious to other vegetation, rendering the land useless for several years. In these experiments two or three applications of arsenate of soda at the rate of 2 pounds to 10 gallons of water were generally suffieient. The preparation is poisonous and stoek must be kept away from the poisoned plants. The cheapest and most effective method of eliminating poison ivy seems to be the simple one of rooting up the plants and destroying them. In large fields it may be necessary to plow and cultivate the land.

The safest time for handling poison ivy is in the fall, after the sap is out of the plants and after the plant has stopped flowering, as the sap and pollen make the plant more likely to affect those who come in contact with it. In any case, however, the following protective measures should be used by those attempting to eradicate it: With the exercise of due care, the use of overalls and gauntleted gloves will enable most individuals to deal with the plants with impunity. The further precaution of greasing the hands with lard, to be washed off with strongly alkaline soap on conclusion of the work, has been recommended. It may be possible to employ some one to remove the plant who is not affected by it, since many individuals are practically immune from the effects of poison ivy. In burning poison ivy care must be taken to keep away from the smoke, as cases of serious injury to eyes, nose, and throat from the poison conveyed by this means have been reported.

The toxic properties of poison ivy are attributed to a nonvolatile oil which is found in all parts of the plant even after long drying. Minute amounts of this oil are capable of eausing extensive inflammation. The oil is insoluble in water but may be removed by alcohol or destroyed by a solution of sugar of lead and alcohol. As a preventive measure thorough and repeated washing with warm water and strongly alkaline soap as soon as possible after contact with poison ivy is advisable, and it should be borne in mind that the poison may be transferred indirectly from clothing, gloves, and implements, also from towels used by those who have been in contact with the plant.

Since ivy poisoning generally subsides within a few days, the treatment of mild cases is simple. There is, however, no one remedy that will eure all cases. In severe cases a physieian should be consulted. Speeialists of the department have found the following methods and formulas useful in many cases: At the outset, removal of the eause of the irritation may be accomplished by eleansing the inflamed surface repeatedly with alcohol, or with a saturated solution of sugar of lead in alcohol, using a fresh bit of lint or absorbent cotton eaeh time, to avoid spreading the irritant. The sugar of lead solution can not be used over extensive areas because of risk of lead poisoning. Covering the inflamed parts with lint or absorbent cotton kept constantly moist with limewater or with a saturated solution of bicarbonate

"THE MONTHLY SUMMARY OF COMMERCE AND FINANCE" FOR NOV. 1915, GIVES THE FOLLOWING REPORT OF IMPORTS OF PLANTS, TREES, SHRUBS AND VINES.

ARTICLES	NOVEMBER—				ELEVEN MONTHS ENDING NOVEMBER—					
	1914		1915		1913		1914		1915	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
Plants, trees, shrubs and vines:										
Bulbs, bulbous roots, or corms, cultivated for their flowers or foliage										
M.....dut...	14,972	203,677	11,035	150,058	197,132	1,868,088	219,143	2,060,838	225,258	2,058,911
All other free....	.....	100	.....	1,803	.....	14,042	.....	12,757	.....	24,715
All other dut....	.....	153,846	.....	277,048	.....	1,316,050	.....	1,299,798	.....	1,197,287
Total	.....	357,623	.....	428,909	.....	3,198,180	.....	3,373,393	.....	3,280,913

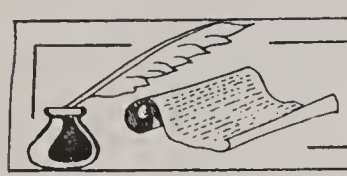
of soda, will afford relief. When this can not be used, a simple ointment, such as zinc oxide ointment, is recommended. A solution containing 1 ounce of fluid extract of grindelia to 1 pint of water applied on cloths and allowed to evaporate may afford relief. Black wash, prepared by adding 1 dram of calomel to 1 pint of lime-water, may be applied two or three times a day, allowed to dry, and followed by zinc-oxide ointment. This treatment must be used with caution in extensive cases because of the possibility of mercury poisoning. The acute inflammation of ivy poisoning is sometimes followed by eczema and secondary infections of the skin, which in mild cases will yield readily to treatment with bland antiseptic ointments. A formula highly recommended for ivy poisoning and often especially helpful at this stage is the following:

POISON.

(For external use only.)

Carbolic acid .....2 grams.
Resorcin .....2 grams.
Bismuth subgallate .....4 grams.
Equal parts water and limewater to make 250 c. c.

This solution may be dabbed on the affected parts several times a day.



Review, Note and Comment.

The Whiting Nursery Company, Yanktown, S. D., are aiming to close out their retail business and devote their nurseries entirely to seedlings and shade trees to be disposed of at wholesale.

Dean Beverly T. Galloway, of the State College of Agriculture, Cornell, N. Y., in an address before the Western New York Horticultural Society urged the fruit interests of the State to prepare for the entirely new conditions that will exist after the war. He points out that necessities of life will be the one great consideration and the demand for luxuries is likely to suffer in consequence.

He urges the fruit interests of his State to get together, taking example of the Citrus industry, co-ordinating the financing, growing, grading, packing and marketing of their products to a common motive and purpose.

The United States Department of Agriculture recommends the injection of bisulphide of carbon into the burrows of the Leopard Moth and the destruction of affected branches.

The larvae of the Moth eats its way into the branches and twigs and their presence may be detected by the wilted condition of the branch affected and by the sawdust-like castings at the entrance of the burrows.

Large trees badly infected should be destroyed.

Carbon bi-sulphide is very inflammable, avoid smoking or inhaling the fumes. Squirt it into the holes with a long spouted oil can, immediately closing the holes with grafting wax.

Bulletin No. 708 gives full information.

HEARD AROUND THE WORLD

At the Nurserymen and Seedsman's Association, of Victoria, Australia, held December 21st, at Melbourne, the secretary read a paper from America entitled "The real effect of price cutting on the total consumption of Nursery stock."

This was the paper by Lloyd C. Stark originally read at the Detroit Convention last June and is printed in full in the "Australasian International Nurseryman."

AMERICAN ASSOCIATION OF NURSERYMEN

President—E. S. Welch, Shenandoah, Iowa.
Vice-President—John Watson, Newark, N. Y.
Treasurer—Peter Youngers, Geneva, Neb.
Secretary—John Hall, Rochester, N. Y.
Executive Committee—President, E. S. Welch, Shenandoah, Iowa, Chairman; J. B. Pilkington, Portland, Oregon, one year; Lloyd C. Stark, Louisiana, Mo., one year; J. H. Dayton, Painesville, Ohio, two years; H. B. Chase, Chase, Ala., two years; J. R. Mayhew, Waxahackie, Texas, three years; Theo. Smith, Geneva, New York, three years; Vice-President, John Watson, Newark, N. Y., ex-officio.
Attorney for Association—Curtis Nye Smith, Boston, Mass.

Chairmen of Committees

Transportation—Chas. M. Sizemore, Louisiana, Mo.
Tariff—Irving Rouse, Rochester, N. Y.
Legislation East of Mississippi River—Wm. Pitkin, Rochester, N. Y.
Legislation West of Mississippi River—Peter Youngers, Geneva, Neb.
Co-Operation with Entomologists—L. A. Berckmans, Augusta, Ga.
Program—L. C. Stark, Louisiana, Mo.
Exhibits—Albert F. Meehan, Dresher, Pa.
Arrangements and Entertainment—T. J. Ferguson, Wauwatosa, Wis.
Publicity—J. R. Mayhew, Waxahackie, Texas; L. C. Stark, Louisiana, Mo.
Editing Report—John Hall, Secretary, Rochester, N. Y.
Root Knot—E. A. Smith, Lake City, Minn.
Membership—Will B. Munson, Chairman, Denison, Texas.
Finance—J. H. Dayton, Painesville, Ohio; T. J. Smith, Geneva, N. Y.; John Watson, Newark, N. Y.

STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irvine Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H. W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

Canadian Association of Nurserymen—President, E. D. Smith, Winona; secretary, C. C. R. Morden, Niagara Falls, Ont.

Connecticut Nurseryman's Association—President, Walter E. Campbell, New Haven, Conn.; secretary, F. L. Thomas, Manchester, Conn.

Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Litooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell, Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, E. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, E. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio; secretary, W. B. Cole, Painesville, Ohio.

Oregon—Washington Association of Nurserymen—President, C. F. Breilhaup, Richland, Wash.; secretary, C. A Tonneson Tacoma, Wash.

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Andorra, Philadelphia Secretary, Henry T. Moon, Morrisville, Penna.

Southern Nurserymen's Association—President, Milton Moss, Huntsville, Ala.; secretary-treasurer, A. I. Smith, Knoxville Tenn. Next meeting, Hendersonville, N. C.

Tennessee Nurserymen's Association—President, J. H. Austin, Antioch, Tenn. Secretary-Treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Deninson, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

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Wanted.

A young man for agency, correspondence with a future. A fine opportunity. Address
LOCK BOX 76,
MONROE - - MICH.

WANTED

Man with thorough knowledge of Nursery business, to act as salesman and correspondence clerk. Permanent position and proper remuneration to right man. Answer
B. A., Care National Nurseryman,
ROCHESTER - - - N. Y.

WANTED

PARTNER—Capable man with some money to take interest in up-to-date nursery and florist business—32 acres 12,000 ft. glass. Doing good business. Address
J. J., Care of National Nurseryman.

SITUATION WANTED—As foreman on Nursery, by man capable of holding responsible position. Years of experience in all branches of Nursery work, expert knowledge of ornamental material and fruits, their propagation and care. References.
FOREMAN, care of National Nurseryman.

FOR SALE

FOR SALE—Whole or part interest in Established Nursery within easy hauling distance of Chicago's finest suburbs. Ample acreage, up-to-date buildings, large variety developed immediate effect stock, exceptional opportunity for party with moderate capital. Address
"INTEREST," Care of National Nurseryman.

FOR SALE

Old established nursery in northern part of Ohio. Owner having other business which needs all of his attention, has decided to offer the nursery business for sale. For particulars address
BARGAIN, Care of National Nurseryman.

FOR SALE; Retail Nursery Business

Located within 50 miles of St. Paul and Minneapolis (the garden spot of the northwest). A growing mail order trade, (17 years established) with an enviable reputation. Exceptional opportunity for live man with some experience and capital. Will sell whole or part interest to right party; with or without land; modern buildings and good general stock.
"NURSERY," Care National Nurseryman.

Advertising + Stock = New Sales
Just as sure as
1 + 1 = 2
So start your
SPRING ADVERTISING CAMPAIGN
NOW

William P. Stark, Stark City, Missouri, is the author and publisher of a book of eighty-eight pages on the subject of "Inside Facts of Profitable Fruit Growing."

The name of the author is sufficient guarantee of the practical value of the work. It is a true chart and compass for the beginner as well as a reference for the expert orchardist.

Presumably it is for free distribution among his customers. Mr. Stark evidently has the larger and broader view of the nursery business, which raises his profession far beyond the mere commercial act of growing and selling trees.

BOOK REVIEW

A splendid little book has just been published by the American Book Co., 100 Washington Square, New York, under the title of Farm Shop Work, by Brace and Mayne.

For simplicity and clearness it would be hard to beat, not only in the text but in the line drawings with which it is copiously illustrated.

It is primarily written for the pupils in agricultural schools but we cannot imagine a book that would be more useful to the farmer, it is so intensely practical, and to the farmer's boy, or any other boy who is likely to be interested in the working of wood, metal, leather or cement it should prove invaluable.

The price is $1.00 postpaid.

EVERGREEN COVER PLANTS

There is a big field to be developed in the growing and marketing of evergreen cover plants. They are grown in a small way both by the nurserymen and florists.

The *Vinca minor* or Periwinkle is perhaps best known of them all and on this account is the steadiest in demand, being used largely in cemeteries. However, the plant has its limitations in adaptibility, being more partial to moisture and partial shade than it is to dryness and sunny exposure.

English Ivy is another good ground cover for many localities and positions. While usually classed as a climbing plant it is really one of the best ground cover plants there is when properly planted and looked after.

In city yards there are always positions that are shaded either by buildings or trees that are hopeless for growing flowering plants and almost for grass; that cry aloud for something to relieve the bareness. In such positions the English Ivy is one of the very best cover plants.

Pachysandra terminilis is in great demand by landscape gardeners and is a splendid evergreen cover plant that looks attractive all the winter, the thick glossy leaves forming a dense mat. It succeeds well either in full sunshine or partial shade. It spreads by means of root stocks. Where it is necessary to propagate large quantities and stock is low, cuttings will be found to be a ready method as they root very readily in sand in early spring.

EUONYMUS VEGETUS

The rarest evergreen climber, common name
EVERGREEN BITTERSWEET
Specimen Arbor Vitae, Norway Spruce, and Hardy Phlox in best quality, can supply in carload lots, get sample and prices.

ADOLF MÜLLER
DeKALB NURSERIES Norristown, Pa.

Peach Trees
and Strawberry Plants

all leading market sorts for Spring, 1916

MYERS & SON, - Bridgeville, Del.

WHEN YOU ARE READY TO PLACE YOUR ORDER FOR

Apple, Standard and Dwarf Pear
Cherry, Plum, Roses & etc.

For Spring 1916 Write

C. W. Mc Nair, - Dansville, N. Y.

Price Right, Stock in Storage, Prompt Shipments.

STRAWBERRY PLANTS

Senator Dunlap and Warfield, Responsible parties, telegram orders filled promptly to May 5th., CATALOG FREE.

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FOR SALE—20 to 25,000 Alberta Peach Trees, good caliper, right price. Also 5,000 Wilder Currant 2–1.

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STRAWBERRY PLANTS

From the largest Strawberry center in the world; millions of plants; 70 varieties; all of the standard and new market sorts. 1 and 2 year old Asparagus roots; Cal. Privet; Peach trees and etc. Send want list for prices.

BUNTING'S NURSERIES
G. E. Bunting & Sons, - SELBYVILLE, Delaware.

EVERBEARING STRAWBERRY PLANTS.

If you need Everbearing strawberry plants to fill spring orders or if you wish to increase your planting in nurseries, we can supply you with genuine PROGRESSIVE Everbearing plants, guaranteed to be TRUE TO NAME and handled so as to reach you in best of growing condition. Write for prices.

We have been growing and breeding the Everbearing strawberries for the past eight yars and have many new varieties growing in our experimental grounds that are not yet for sale. We invite a personal visit to our grounds during fruiting season, preferably during August or September. The latch string is always out.

THE GARDNER NURSERY CO., Drawer 103, Osage, Iowa.

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Quality isn't everything.
There's the question of service.
Poor packing and delays in transit have ruined lots of good stock.
We pack well—and—
You can avoid the delays by using
Our CARLOAD FREIGHT SERVICE
We will have through cars to the following distributing points for re-shipment to surrounding territory—

Distribution Point	Shipping Date	Distribution Point	Shipping Date
St. Louis, Mo.	Early March	Jackson, Mich.	April 6
Chicago, Ill.	" "	Hartford, Conn.	" 7
Kansas City, Mo.	March 25	Lansing, Mich.	" 7
Roanoke, Va.	" 27	Taunton, Mass.	" 8
Charleston, W. Va.	" 27	Grand Rapids, Mich.	" 8
St. Louis, Mo.	" 28	Worcester, Mass.	" 10
East St. Louis, Ill.	" 28	Ashley, Mich.	" 10
Sutton, W. Va.	" 28	Boston, Mass.	" 11
Des Moines, Ia.	" 28	Saginaw, Mich.	" 11
Rock Island, Ill.	" 29	Minneapolis, Minn.	" 12
Clarksburg, W. Va.	" 29	Portland, Me.	" 12
Cumberland, Md.	" 29	Mackinaw, Mich.	" 13
Terre Haute, Ind.	" 29	Green Bay, Wis.	" 14
Indianapolis, Ind.	" 29	Nashua, N. H.	" 15
Columbus, Ohio.	" 30	Springfield, Mass.	" 17
Chicago, Ill.	" 30	Pittsfield, Mass.	" 17
Ft. Wayne, Ind.	" 30	Lewiston, Me.	" 17
Toledo, Ohio	" 30	Brattleboro, Vt.	" 17
Cleveland, Ohio	" 31	White River, Vt.	" 17
Johnstown, Pa.	April 3	Wells River, Vt.	" 18
Milwaukee, Wis.	" 5	Burlington, Vt.	" 18
Detroit, Mich.	" 5	Waterville, Me.	" 18
New Haven, Conn.	" 6	Bangor, Me.	" 19

Look over our March 1st list. If you are not getting our Surplus Bulletins regularly, drop us a card and we'll see that you do.

Chase Brothers Company,

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Growers of Quality Stock

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Established 1857

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Rochester, N. Y.

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Seneca Nurseries
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Let us make you quotations on
Apple, Std. and Dwf. Pear, Cherry, Plum, Peach, Quince, Apricot, Small Fruits, Grape Vines, Ornamental Trees and Shrubs.

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Large assortment of Tree, Shrub and Fruit Seeds for ornamental and forestry purposes Send for catalogue. **CONYERS B. FLEU, Jr.**

Germantown, Philadelphia, Pa.

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ROYAL PALM NURSERIES · REASONER BROTHERS · ONECO, FLORIDA, U.S.A. · "MILI SECUNDUS"

Unusual and rare stock in great variety; hardy Bamboos, Palms, Crapemyrtles, Fruit and Economic trees and plants, etc., etc., from all over the world. New additions constantly being tested. Ask for complete descriptive catalog, and wholesale rates. **34th year.**

REASONER BROS.,
ONECO - - FLORIDA.

GRAPE VINES

OTHER SPECIALTIES: Gooseberries, Currants.
Send want list for prices.
The JOSSELYN NURSERY COMPANY,
Fredonia, N. Y.

FOR ROSES LOOK TO

The CONARD & JONES Company,
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Will exchange peach trees for 2 year apple trees. Want evergreens and other ornamental stock for Spring delivery.

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Large Stock of
RHODODENDRONS, CONIFERS, AZALEA MOLLIS, DUTCHMAN'S PIPE, ROSE BUSHES, BOXWOOD, CLEMATIS, HYDRANGEA P. G., BLUE SPRUCE, AMPELOPSIS, ETC.

Will be pleased to submit our special prices upon application.

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Our price list of Ornamental Nursery Stock has been mailed to the trade. If you did not receive a copy send for it.

AUDUBON NURSERIES,
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Hardy Native Plants and Trees
For Immediate Effect
RHODODENDRON MAXIMUM A SPECIALTY
Nursery Grown Hemlocks
THE CHARLES G. CURTIS COMPANY,
Write for Price List CALLICOON, N. Y.

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CLEAR PINK. ABSOLUTELY HARDY

Send for prices and full description, and Catalogs of the only large collection of Hardy Native Plants.

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Let me quote you on
TREE AND SHRUB SEED
CONIFER AND ACORNS
A Specialty
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(Lake County Ohio Grown)

You Cannot Buy Better—Even Though You Paid More
BLACKBERRY, RASPBERRY, STRAWBERRY

The leading varieties, in large quantity, including also the fall bearers, are offered the trade at **attractive prices.** Also 250,000 lining out sizes at a bargain.

Send along your want list, in exchange for my variety **list** and quotations by letter. I want your order.

Growing Splendid Plants and Berries is my Business
Prompt Service is my Hobby

When you want plants and service as good as Hathaway's
You should buy of Hathaway

Yours for Quality Plants,
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THE VERY BEST

Apple Trees, One and Two Years
Cherry Peach Kieffer Pear
Grapes
Rhubarb, True Myatt's Linnaeus, Divided Roots

SHADE AND ORNAMENTAL TREES

American Elm
American Sycamore
Cornus Florida
Kentucky Coffee
Silver Maple
Cut-leaved Maple
Carolina Poplar
Bechtel's Flg. Crab 4 to 5 ft., and 5 to 6 ft.
Catalpa Bungei, straight stems
Catalpa Speciosa
Honey Locust, Thornless and Common
Tulip Tree
Volga Poplar
Texas Umbrella

ORNAMENTAL SHRUBS

Althea
Calycanthus
Cydonia Japonica
Cornus Siberica
Deutzia
Eleagnus
Forsythia
Upright Honeysuckle
Berberry, Purple-leaved and Thunbergii
Lilac, Common and Named Sorts
Philadelphus
Spirea
Viburnum
Weigelia
Hydrangea Arborescens Grandiflora
Hydrangea Paniculata
The Hydrangea we offer are strong, vigorous plants. An unusually good lot

FRIVET

California and Amoor River, hardy
California, 1 year, 12 to 18 in. and 18 to 24 in.
2 years, transplanted, 2 to 3 ft. and 3 ft. and over
Amoor River, 1 year, 12 to 18 in. and 18 to 24 in.
2 years, transplanted, 2 to 3 ft. and 3 ft. and over.

ROSES

Excelsa, a fine crimson rambler
Dorothy Perkins White Dorothy Perkins

FOREST TREE SEEDLINGS
APPLE SEEDLINGS
APPLE GRAFTS

J. H. SKINNER & CO.

TOPEKA - - - - KANSAS

CHAMPION NURSERIES, Perry, Ohio.

Offer fine lot Peach in all grades
JAP PLUMS, 1 year, 5 to 7 feet
CATALPA BUNGEI, 1 and 2 year heads
BARBERRY THUNBERGI, 18 to 24 in.
SPIREA VAN HOUTTI, 3 to 3½ feet
Berry Plants all kinds, Grape Vines, Etc.

H. J. Champion & Son, Perry, Ohio.

A Few Good Things

You will need this Spring, Two Year Apple, One Year Peach, in assortment, Kieffer and Bartlett Pear, two year, Plums, One year, Abundance, Burbank, America, Spireas, Van Houttei, Billardi, Norway Spruce, Juniper, Arbor-Vitaes, and many other items you will need, at right prices, let us have your want list.

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We offer a large stock of Apple Trees, peach, plum and cherry trees, in all leading varieties. Send us your want list for Quotations.

Special price on peach in Car Lots. Better get our prices. We can save you money.

BLACKBERRY ROOT CUTTINGS

BERRY PLANTS and ELBERTA PEACH TREES
at BARGAIN PRICES
GRAY'S NURSERIES,
R 4, - - - Salem, Ind.



Two horses will do the same work with this digger as twelve horses do, with them now in use. Write for descriptive circular with testimonials.

EAST GRAND FORKS NURSERY, East Grand Forks, Minn.

W. B. COLE, PAINESVILLE, OHIO.



ONE OF OUR STORAGE CELLARS

IT IS FULL TO THE ROOF WITH STOCK, READY FOR PROMPT SHIPMENT.

PARTIAL LIST OF STOCK ON HAND.

Fruit Trees

STANDARD APPLES—An unbroken list of varieties.
DWARF APPLES—Fifteen of the leading varieties.
STANDARD PEARS—2 years. None better anywhere.
DWARF PEARS—2 years. As good as can be grown.
PEACHES—Unusually fine stock. Over 50 varieties.
WILMA PEACH—Identical with Elberta but **one week later.**

Small Fruits

CURRANTS—Champion, Naples and Wilder, 1 and 2 years.
GOOSEBERRIES—Downing, 1 and 2 years.
GRAPES—Catawba, Concord, Moore's Early, Niagara, 1 and 2 years.
RASPBERRIES—Cuthbert, Golden Queen and St. Regis.
BLACK RASPBERRIES—Cumberland, Gregg, Kansas, Plum Farmer.
" " transplants—Gregg, Kansas, Plum Farmer.
BLACKBERRIES—Root Cutting Plants, Extra Size, No. 1 and No. 2. Also a lighter grade for lining out. Eldorado, Mersereau, Ohmer, Snyder, Taylor.

Ornamental Trees

CATALPA BUNGEI—One, two and three year heads.
" **SPECIOSA**—Up to 2½ inch caliper.
ELM, AMERICAN and SCOTCH—Up to 4 inch caliper.
HORSE CHESTNUT—Up to 3 inch caliper.
MAPLE, SILVER—Up to 4 inch caliper.
" **SUGAR**—Superior, straight, well furnished trees up to 3½ inch caliper.
SYCAMORE, EUROPEAN—Up to 3 inch caliper.

Shrubs

ALTHEAS—Named sorts, 2 to 3 and 3 to 4 feet.
BERBERRY THUNBERGI—1 to 1½, 1½ to 2 and 2 to 2½ feet.
CORNUS ELEGANTISSIMA VARIEGATED—3 to 4 feet.
" **SIBERICA**—2 to 3 and 3 to 4 feet.
ELDER, GOLDEN—2 to 3 and 3 to 4 feet.
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SPIREA, OPULIFOLIA AUREA—4 to 5 and 5 to 6 feet, heavy clumps.

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" **VULGARIS**—2 years, 1 to 1½, 1½ to 2 and 2 to 3 feet.

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HEMLOCK—2 to 3, 3 to 4 and 4 to 5 feet.
RETINISPORA, PLUMOSA—1½ to 2 feet.
" " **AUREA**—1½ to 2 and 2 to 3 feet.
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" " **AUREA**—2 to 2½ feet.
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" " **AUREA**—15 to 18 inches.
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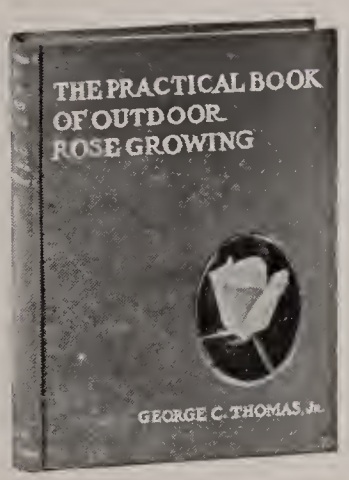
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APRIL 1916

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Prime RAFFIA furnished in original bale lots; and other Nursery and Greenhouse Supplies

CUSTOM HOUSE BUSINESS
and reforwarding promptly attended to.
Address for lists and further detail:

P. O. Box 752 New York
or 51 Barclay St.

For Spring 1916

300,000 APPLE, 2 & 3 year, splendid trees
75,000 CHERRY, 2 year, none better
200,000 CHERRY, 1 year, fine
40,000 PEAR, 1 & 2 year
40,000 PLUM, 1 & 2 year, fine

Also large stock of ELM, NORWAY, SUGAR, SOFT MAPLE, CATALPA BUNGII, and a general assortment of other ornamental trees, shrubs, hedge plants, perennials, small fruits, etc.

We can furnish ornamental trees in almost any size wanted.

A fine growing season, a fine lot of stock

C. M. Hobbs & Sons

Marion County, - - Bridgeport, Ind.

Now is the time to order
DIRECT IMPORTATIONS
From European Nursery Centers.

FRENCH FRUIT STOCKS

Pear, Apple, Myrobolan, Mahaleb, Mazzard Manetti, Multiflora and Quince. Also a full line of Ornamentals for lining out. Best packing and grading. December and February shipments from **Vincent Lebretons Nurseries, Angers, France.**

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Boxwood (bushes, pyramids, standards, ball-shape, etc.) Roses, Tree Roses, Azaleas, Magnolias, Rhododendrons, Koster Blue Spruce, Evergreens, etc. Fall or Spring shipment from **Schaum & Von Tol, Boskoop, Holland.**

DECIDUOUS TREES

Norway and Schwedler Maples, Tilias, Oaks, Elms, Chestnuts, Planes, Thorns, etc. Straight stems, good roots, careful selection. Fall or Spring shipment from **Union Nurseries, Oudenbosch, Holland.**

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Full list of varieties, also Aquatics, Rock Plants, etc.; low prices. Fall or Spring shipments from **Royal Tottenham Nurseries, Dedemsvaart, Holland.**

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MANETTI, Gooseberries (Whinham Industry, Whitesmith, Keepsake, Crown Bob, etc.), 2 and 3 years. Fall or Spring shipment from **John Palmer & Son, Annan, Scotland.**

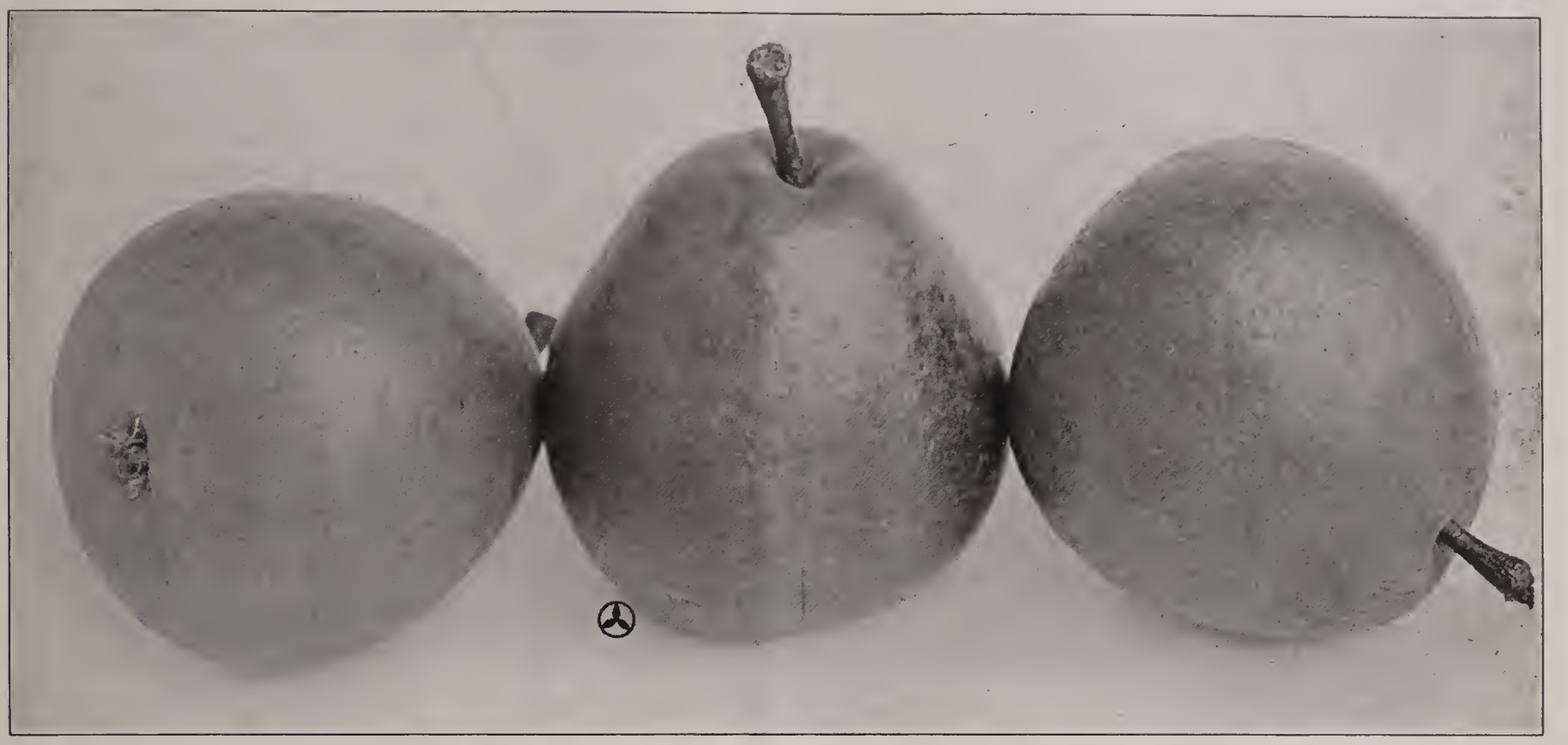
BAY TREES from Belgium. All sizes, hardy Lilies from Japan, all varieties.

RAFFIA, Red Star, XX Superior, Arrow and AA West Coast Brands. Bale lots or less.

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McHutchison & Co., The Import House
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-- SURPLUS --

Special Low Rates for Immediate Delivery

APPLES-- *All Commercial Varieties*

PEARS-- *Standard and Dwarf, in Variety*

PEACHES-- *All Leading Kinds*

CHERRIES-- *Sweet and Sour*

PLUMS-- *Europe and Japan*

GRAPE VINES *and all other* **SMALL FRUITS**

We are Still Strong on ORNAMENTAL Stock--
Trees, Shrubs, Roses and Perennials.

THE STORRS & HARRISON CO.

ESTABLISHED 1854 — PAINESVILLE, OHIO. — 1200 ACRES 45 GREENHOUSES

WORTH MANY DOLLARS

to buyers of nursery stock, is our current Bulletin of Unsold Stock, and yet it is free for the asking,—if you are in the trade. If you did not receive your copy write for it. Do it today. Use printed stationery, please. We sell to the trade only.

It offers a splendid assortment of

ROSES PERENNIALS SHRUBS

VINES ORNAMENTAL TREES

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CURRANTS GOOSEBERRIES

All graded up to the well known "J. & P. Preferred" standard.

We ask especial attention to our offerings of
ROSES from 2½ inch pots for nursery planting.

They are extra well-established stock that live, grow and make No. 1 field-grown plants in a surprisingly short time.

JACKSON & PERKINS CO.

Newark, - - New York.

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Huntsville, Ala.

MILTON MOSS, Prop.

We offer for Spring of 1916 in large quantities as usual:

Alabama's **C**hoice **P**roduct
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Apple
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ROSES: Budded H. P's. One of our specialties. We grow them by the hundred thousands.

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Send us your orders and inquiries

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Hill's Evergreens

You can work up a good profitable trade in Evergreens if you have the right kind of stock. Our main specialty for over half a century has been the propagation of young Evergreen stock for the wholesale trade in immense quantities at low prices.

We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

YOU want to keep posted on Evergreens;
WE want to become better acquainted with you;
Let's get together.

The D. HILL Nursery Co., Inc.

Evergreen Specialists

LARGEST GROWERS IN AMERICA.

Box 401 - Dundee, Ill.

"Anything from Anywhere"

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F. DELAUNAY,
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Fruit-tree Seedlings, Rose Stocks, Young Ornamentals for lining-out.

S. SPOONER & SONS,
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Manetti Stocks, Gooseberries, Trained Fruit Trees.

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Azaleas, Rhododendrons, Palms, Bay Trees, Exotic Plants and Forcing Stock.

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Bulbs, Seeds, Dwarf Conifers, Tree Peonies, etc. Also well-known Holland and German growers. Quotations furnished on ANYTHING in quantity HOME-GROWN or IMPORTED An inquiry will cost a stamp and may save dollars, plus Quality and Service.

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GROWN FOR A MOST PARTICULAR LANDSCAPE TRADE

OUR SURPLUS, GROWN ON OUR OWN GROUNDS, IS LISTED BELOW. IF YOU CAN USE ANY OF THESE WELL TRAINED SHRUBS AT A PRICE IN QUANTITY

WRITE US

5,000	Japanese barberry, 2½–3 ft., Fine
11,500	Philadelphus, in variety 5 ft., Bushy
11,000	Spiraea Van Houttei, 3–4 ft.
11,700	Lonicera Morrowi, 3–4 ft., Bushy
3,000	Cornus Siberica, 3–4 ft., Heavy
40,000	Privet Amorense, 3 ft., 14–18 in., Branched
1,800	Silver Maple, 2 in. diam., specimens
2,300	Lombardy Poplars, 1½-2 in. diam., specimens

Also, Spiraea opulifolia, Salix, Hibiscus Moscheutos.

WANT A CAR LOAD?

THE PRICE IS RIGHT!

BEAUDRY'S NURSERY CO.

GROWERS FOR AND DESIGNERS OF

LANDSCAPE IMPROVEMENTS

700 RAILWAY EXCHANGE BLDG. CHICAGO.

FIFTIETH YEAR

T. S. HUBBARD CO.

FREDONIA, N. Y.

The longest established and best known growers of

Grape Vines

And the largest stock in the United States



CURRANTS and GOOSEBERRIES

A fine stock of leading varieties. One and two years.

BLACKBERRIES

The largest and best stock of root-cutting plants in this country All the best varieties. Snyder in great quantity. Our blackberry plants are as well furnished with fibrous roots as our well-known grape vines.

Planet Jr. Cultivators

have no equal anywhere

They produce the best crops and biggest profits for seedsmen and nurserymen wherever used. They save time, lighten labor, and last a life time. Fully guaranteed.

No. 16 Planet Jr. Single Wheel Hoe, Cultivator, Rake and Plow is the highest type of single wheel hoe made. Light and durable—can be used by man, woman, or boy. Will do all your cultivation in the easiest, quickest and best way. Strong indestructible steel frame. High, easy-running steel wheel. Costs little, 14 other styles of wheel hoes—various prices including. New Slide Hoe for onion growers. $2.50.

Planet Jr. 12-tooth Harrow is stronger, steadier in action, does more thorough work, and lasts longer than any other harrow made. The twelve chisel-shaped teeth of specially hardened steel cut out all weeds, stir and mellow the soil without throwing dirt on plants, and the pulverizer leaves the ground in finest condition. Can be set to desired depth and width, making delicate work easy. Non-clogging steel wheel.

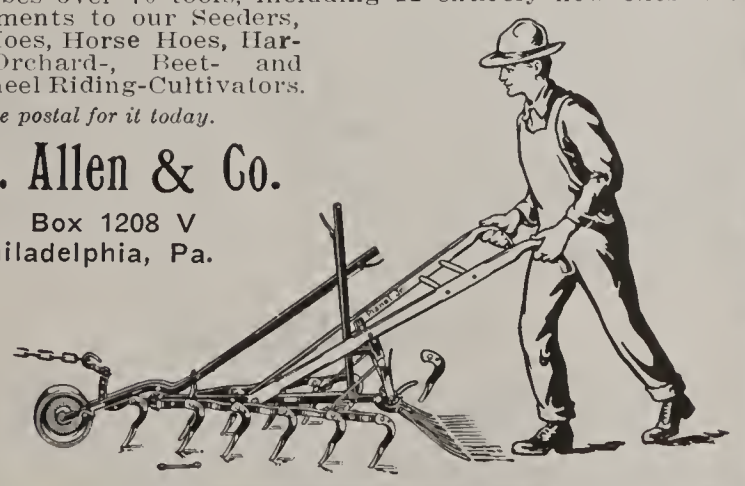
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Describes over 70 tools, including 12 entirely new ones and improvements to our Seeders, Wheel-Hoes, Horse Hoes, Harrows, Orchard-, Beet- and Pivot-wheel Riding-Cultivators.

Write postal for it today.

S. L. Allen & Co.

Box 1208 V
Philadelphia, Pa.



67th Year *67th Year*

NOTICE

To our Customers and Friends

We wish to notify the Public that we will continue in active business, prepared to fill all orders promptly and carefully with

High Grade Nursery Stock

For Spring we can offer very attractive prices on Peach, Apple, Kieffer Pear, Asparagus, Privet and a general line of Shade and Ornamental Trees; an extra fine lot of 1 year Planes, Silver Maples and Privet for transplanting.

Send us your WANT LIST and do not place your orders without getting our prices.

Franklin Davis Nursery Co.

Wm. F. Stone, Trustee

BALTIMORE, MD.

Shrubs.

The growing season with us this year has been wonderful. Plenty of rain and heat, and this, with the necessary cultivation, has produced for us an exceptionally fine lot of shrubs. We offer in large quantities:—

Spiraea Anthony Waterer	Highbush Cranberry
Persian Lilac	Snowball, Common & Jap.
Spiraea Van Houttei	Mock Orange
Kerria, double	Bush Honeysuckle

Also many other trees and shrubs

Japanese Maples.

We call special attention to our Japanese Maples. We have them in a fine assortment of varieties and sizes. Some extra fine, large specimens.

Send for Our Wholesale Trade List

Thomas Meehan & Sons,
Wholesale Nurserymen,
Dresher, Penna.

We Are Prepared To Supply The Trade.

ROSES, FIELD-GROWN. Own roots and budded.
ABELIA GRANDIFLORA. Transplanted, field-grown.
BERBERIS JAPONICA.
AZALEA INDICA. (Home-grown).
GARDENIAS.
ENGLISH LAUREL.
MAGNOLIA GRANDIFLORA.
MAGNOLIA FUSCATA.
OLEA FRAGRANS.
CAMPHOR. (Pot-grown).
LIGUSTRUM JAPONICUM.
LUCIDUM, NEPALENSE, and other good varieties, fine bushy plants.
SATSUMA ORANGE. Field-grown, budded on Citrus Trifoliata.
BIOTA AUREA NANA. (Berckmans' Golden Arborvitae)
BIOTA AUREA CONSPICUA.
RETINOSPORA. In variety.
JUNIPERUS. In variety.
WISTARIAS. Grafted, best sorts.
APPLES.
JAPANESE PERSIMMONS.
ENGLISH WALNUTS.
MULBERRIES.
SPIRAEA THUNBERGII. A beautiful lot of stocky plants.

A fine stock of Hackberries, Koelreuteria, Tulip Poplar, Magnolia Purpurea, Texas Umbrella, Double-flowering Peaches, Sycamore and Elms.

Send us a list of your wants and let us give you quotations.

P. J. BERCKMANS CO., Incorporated
FRUITLAND NURSERIES AUGUSTA, GEORGIA

SPECIAL NOTICE

APPLE QUINCE PEAR CHERRY
PEACH PLUM

A Fine Block of
Own Root Roses

ORNAMENTAL TREES SHRUBS
BERRIES CLEMATIS
EVERGREENS PEONIES PHLOX
PYRAMIDAL and STANDARD
TREE BOX, 3 to 6 feet

Write for our Special Prices

SPECIAL ATTENTION given to Dealers, complete lists and carload lots.

W. & T. SMITH COMPANY
GENEVA, N. Y.
63 Years 700 Acres

SEEDLING EVERGREENS

BY THE MILLIONS

Arbor Vitae	Jack Pine
Austrian Pine	Norway Spruce
Black Hill Spruce	Pinus Ponderosa
Colo. Blue Spruce	Pitch Pine
Concolor	Red Spruce
Douglas Spruce	Scotch Pine
Engelmanii Spruce	White Pine
European Larch	White Spruce

All sizes. Ask for prices.

SPECIAL QUOTATIONS ON LARGE ORDERS

Also the following **APPLES** in 1-2 in., 5-8 in. and 11-16 in. sizes at special prices:

Ben Davis, Duchess, Florence, Gano, Hibernal, Iowa Beauty, N. W. Greening, Okabena, Patten's Greening, Peerless, Peter, Pewaukee, Scott's Winter, Soulard, Strawberry Crab, Transcendent, University, Virginia, Wealthy, Whitney and Wolf River.

SHERMAN NURSERY COMPANY
CHARLES CITY, IOWA

The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

Stark Bros. Nursery & Orchards Co.

LOUISIANA, MO.

For Spring, 1916

We mention a few items of our large and complete stock that may prove of interest. Let us hear from you as to your needs.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Norway Maples, 2-inch caliper and up. California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Also, a large and complete assortment of Ornamental Trees and Flowering Shrubs. Among our large stock of Fruit Trees, we call especial attention to our surplus of

10,000 Kieffer Pears, 2 and 3 years
20,000 Stayman's Winesap Apples, 11-16 in. and up
10,000 Downing Gooseberries, 2 years, No. 1
200,000 Apples, 2-year buds, fine

HOOPES, BRO. & THOMAS COMPANY

Maple Avenue Nurseries

Established 1853 — West Chester, Pa.

Philadelphia Office:
222-3-4-5 Stephen Girard Bldg. — 21 So. Twelfth St.



P. D. Berry, Wholesale Nurseryman, is offering for Spring 1916

In Storage, can ship any time

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, California Privets, Barberry THUNBERGII, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

Quotations furnished by letter.

P. D. BERRY,

Dayton, - Ohio

Cherry Trees

We offer for sale our usual supply of strictly first-class one year and two year

Cherries

Mahaleb or Mazzard roots

Can furnish some extra heavy trees for landscape work.

We also offer Kansas grown Mahaleb

Send us a list of your wants.

H. M. Simpson & Sons

Vincennes, Indiana

The Macatawa Everbearing Blackberry.

The only everbearing Blackberry, originated by Alfred Mitting, Holland, Mich., 1909, a cross between the Giant Himalaya, and Eldorado Blackberries. It fruits from the new wood Spring, Summer and Fall. The hardiest Blackberry anywhere in the United States. Not a single kick to date, but all praise it. We have a stock of 400,000 plants.

MACATAWA PIECE ROOTS
MACATAWA, 1 year old.
MACATAWA, 2 years old, only 5,000 left.

250 at 1000 rate. When Cash is sent with order we Prepay Express charges, otherwise C. O. D. Descriptive Circular free.

BERRYDALE GARDENS,

Lock Box, 685 SAN JOSE, California.

Berrydale Gardens, San Jose, California. Sullivan, Mo. February 3rd, 1916.

Gentlemen:—

Please mail me your 1916 catalogue. Quote me your lowest prices on Macatawa Everbearing Blackberries of the following ages,

Root Cuttings per 1000.
One year plants by the 1000.
Two year plants per 1000.

The everbearing blackberries that I bought from you at HOLLAND, MICH., and also at Santa Cruz gave every satisfaction.

Very truly yours,
H. SHELBY MASON.

WE OFFER THE FOLLOWING

FIRST-CLASS STOCK

At prices so low it must pay you to ask it

NORWAY MAPLES,

2½ to 6 in. Cal., in quantity

A few of most all varieties shade trees in sizes running 3 inch to 10 inch in cal.

CALIFORNIA PRIVET

Up to 15 in. in height

KOSTER'S BLUE SPRUCE

Perfect Specimens, 4 to 15 ft.

A lot of evergreens in Norway Spruce, Pine and Arbor Vitae, not specimens but very suitable for grouping or screening, up to 11 feet high.

The finest lot of LOMBARDY POPLARS up to 30 feet ever offered to the trade.

LET US QUOTE YOU

Chas. Momm & Sons,

IRVINGTON, N. J.

LATE ORDERS

When you get those late orders this Spring Remember that we can ship unusually late on account of our modern storage facilities.

We still have a good assortment of fruit and ornamental trees, shrubs and perennials.

Look over our surplus list

Keep it before you. You'll probably need it before the season winds up.

Chase Brothers Company,

The Rochester Nurseries

GROWERS OF QUALITY STOCK

Established 1857. **Rochester, N. Y.**



SEND US

a list of what you can use.

You will get our special prices by return mail, or by wire if you are in a hurry.

We will ship direct to you or your customers as you prefer.

We Are Headquarters for Everything That is Best in STRAWBERRIES.

Let us hear from you.

Our Strawberry Plants

as fine as ever grew. We have them on our own grounds: (fresh new land). Plants strong, vigorous, and healthy with an abundance of fibrous roots. And every plant guaranteed true to name. No better anywhere, at any price. And *our plants are hardy everywhere,* where strawberries are grown.

No order too big for us to handle with ease. Small orders receive the same careful attention, that we give the larger ones.

100,000	Abington	50,000	Ewell's Early	100,000	Lady Thompson	1,500,000	Rewastico
200,000	Amanda	100,000	Fendall	100,000	Lea	1,000,000	Sample
200,000	Aroma	50,000	First Quality	150,000	Longfellow	50,000	Saunders
200,000	Brandywine	500,000	Gandy	500,000	McAlpin	1,500,000	Senator Dunlap
300,000	Bubach	1,000,000	Glen Mary	100,000	Marshall	150,000	Sharpless
1,000,000	Big Joe	50,000	Gold Dollar	50,000	Mascot	100,000	Somerset
2,000,000	Chesapeake	100,000	Grand Marie	800,000	Missionary	100,000	Superb
100,000	Climax	400,000	Haverland	100,000	Mitchell's Early	200,000	Tenn Prolific
500,000	Early Ozark	50,000	Heritage	100,000	New York	100,000	Three W's
50,000	Early Jersey Giant	100,000	Hustler	100,000	Ohio Boy	200,000	Twilley
50,000	Edmund Wilson	100,000	Kellogg's Prize	100,000	Orem	1,000,000	Warfield
100,000	Ekey	1,000,000	Klondyke	200,000	Parson's Beauty	25,000	Wilson
50,000	Excelsior	100,000	Lady Corneille	100,000	Paul Jones	200,000	Winner
				200,000	Progressive	500,000	Wm. Belt

Send US Your List

The W. F. ALLEN CO.

100 Market Street

Salisbury, - - Maryland

All plants tied 25 to the bunch and every bunch labeled.

PREPAREDNESS

Everybody is talking about preparedness—and its a good thing. Not a few firms this Spring have their land ready for stocks—but have no stocks! They have been disappointed at the last moment in getting them.

By placing your order now for next season, you will be prepared —not only to save in the advance in prices—but you will get the grade and quantity ordered at the time you want them.

We will book orders now for any grade of Apple stocks or Japan Pear stocks, for delivery next Fall.

Our grades will be satisfactory to you—we make them so. You take no risk in transportation—we guarantee that stocks will arrive at your station in perfect condition.

Get out of the rut. Do not use inferior stocks because you can exchange something for them. Propagating stocks should be of the very best. We grow Apple and Pear stocks exclusively. We make no exchange, but give real value and satisfaction, with highest quality stocks.

For immediate shipment we can furnish about 100,000 strong grade No. 1 Apple Seedlings, also 150,000 No. 2 and 100,000 No. 3. These are in perfect condition.

F. W. WATSON & CO.,

TOPEKA, KANSAS

Apple and Pear Seedling Specialists.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK
The National Nurseryman Publishing Co., Incorporated

Vol. XXIV. ROCHESTER, N. Y., APRIL, 1916. No. 4

A FEW GOOD THINGS.

By C. J. W. Ottolander, F. & F. Nurseries, Springfield, N. J.

TO begin with, I want to call your attention to *Cercidiphyllum Japonica,* or Japan Katsura, really a beautiful little tree, of pyramidal habit of growth, branched low, nearly to the ground, resembling in habit somewhat the Lombardy poplar. Its branches are of reddish brown, its foliage though not large, of very pleasing green, turning a bright bronze red in the fall. All together a valuable and desirable plant to grow as a lawn specimen, also for screen planting where a medium size screen is needed. It is a fairly rapid grower.

Next comes *Magnolia parviflora.* This is one of the Japanese Magnolias, grows to a small sized tree in bush form and flowers in June after the leaves come on the tree, in consequence the flowers do not suffer from late frosts as do those of the earlier flowering kinds. The flowers are not near so large as those of *Magnolia Lenni* or *Soulangeana,* larger than those of *Magnolia stellate,* of somewhat waxy texture, pure white, with a crimson throat and stamen, making a very pretty flower, carrying a delightful odor. They last considerable length of time. It is undoubtedly bound to be popular, if we can make it known to the public. It is absolutely hardy and



Mountain Ash used as street trees along driveway in grounds of the Gardner Nursery Co., Osage, Iowa.

will make a good lawn tree.

Another interesting tree is the Silver Leaf Poplar, or *Populus alba canescens*. It is true, it belongs to a race that has been condemned by shade tree commissions and the like, nevertheless this variety might be called an exception. So far as we know, it does not clog up sewer pipes, and does not outgrow the sidewalk. In Jersey City a good many of them have been set out, there are trees which now measure 6 inches in diameter, giving good satisfaction. Its foliage is dark green, nearly white on the underside of the leaves, like that of the Bolleana poplar but much larger, it is persistant until frost, retaining its fresh color until then, while the tree is a rapid grower, it does not demand all space in sight.

It grows well under adverse conditions such as in smoky cities, in consequence is well adapted for street planting. This tree should be used more extensively.

Populus suaveolens, a Russian variety, is also a new comer so to say, we have taken this up reeently. Hicks from L. I. grows it freely, and claims it to be "the" poplar. It looks good to us, though we have not been able to judge its qualities thoroughly, not having observed it long enough.

There are a few shrubs of special merit. Lonieera Maacki, is one of them. It grows to a good sized bush, upright in habit, flowering freely with pleasing white flowers, twice the size of those of other bush honeysuckles, these flowers are followed by an abundance of coral red berries, which are very persistant, more so than those of the tartarian varieties or L. Morrowi. We have grown this variety for the last two years, and consider it quite an acquisition.

Speaking about *Lonicera Morrowi*, this reminds me of a fact which you may not know, that the plant which is usually sent out under that name by most nurserymen, is not the true kind. The plant sent out is of a semipendulous habit, like the Regel's privet and while it is a valuable variety, it is claimed by the Arnold Arboretum authorities not to be the true kind.

The true variety is nearly a creeper, its trailing habit of growth resembling that of the *Forsythia suspensa*, the flowers are not large, but its foliage is very good, quite persistant in the fall, while it berries with either red or yellow fruit, very conspicuous and desirable.

In the shrubs, there is continually more and more attention paid to the native kinds. It is true some of the imported kinds are perhaps more showy, indeed are better known, but for large planting and fall coloring effects, nothing can beat our native plants.

The wild roses are much in demand, such as *Rosa Carolina, blanda, lucida* and *nitida*. Several varieties of sumach and Viburnums are leaders in these days. Cutleaf Sumach is one of the most brilliant plants in autumn, its fern like foliage turning a very brilliant color in the fall. Among the Viburnums we might mention



Asparagus, Rhubarb, etc., on grounds of the Gardner Nursery Co., Osage, Iowa.

V. cassinoides, lentago, and last but not least *Sieboldi* or *Japonica*. The latter is a tall growing bush, with large foliage, leaves sometimes six inches long, of leathery texture, deeply veined and dark green color. The flowers are white, followed by red berries in the summer, which turn black in the fall. This is a valuable variety, but little used, yet coming into favor.

Another shrub, which I nearly forgot, is the *Cephalanthus occidentalis* or Button ball flower. The foliage of this plant, resembles that of the white fringe, it is not quite so large, the flower in shape resembles the fruit of the American Buttonball tree, is white and seems to be a great attraction for bees, which swarm over the plants in large number when in flower. It is very showy when blooming, and should be planted more.

In the evergreens we have a large range of possibilities to increase our assortment, it may be said, however, we have to be more careful yet in making our selections than in any other type of plants, as none is more suscep-

tible to environment and exposure. We find a good many varieties planted indiscriminately, often to the sorrow of the planter and largely due to the lack of knowledge of the nurseryman.

It is too bad our climate is so particularly hard on these plants, nothing is more pleasing especially in the winter time as a good setting of choice evergreens, placed right.

The Firs, Spruces, Yews and Retinisporas are among the leading varieties, not to forget the Junipers or Cedars.

Of the Firs and Spruces I would call special attention to the following:

Abies cephalonica and *cilicica,* both resembling the Nordman Fir in general appearance, though hardier and better growers. *Abies concolor* is a favorite of mine, a better plant than the Kostei's Blue Spruce, which is now so popular. *Abies Douglasi* should be planted extensively in preference to Norway spruce, which it exceeds in beauty and in quality, we all know, the Norway spruce usually goes back after it attains a certain age and is a bad looking tree by the time it is full grown, losing most of its lower branches.

Abies Omorika is another good kind. It resembles somewhat *Abies Alcockiana,* it is however a free-er grower and stronger. The best of all is *Abies Veitchi,* with its dark green foliage, silvery ribbed on the under side of the needles, it makes a very handsome effect when grown to a fairly good size. It transplants quite readily, which is also a great advantage.

Of the Biota family we cannot grow a great number to perfection, though we find the *Biota orientalis aurea conspicua* to be a great improvement over the older Rollinson's golden variety. The first retains its bright yellow color all through the winter, its foliage is of a finer texture, while the latter turns a dull bronze brown in the winter, causing many people to think it is dead.

Do you know Azalea *Kaempferi,* or *Rhododendron Kaempferi* as a good many call it? In the Arnold Arboretum there can be found large specimen plants of this variety, perfectly hardy and a blaze of color in the spring, of a soft deep pink. The foliage is glossy green and while not entirely persistant, it hangs on to the plant pretty well until spring.

It harmonizes well with other colors in this same genus of plants, and for that reason alone will be found a desirable variety.

For rock planting, I would like to mention the Cotoneaster family, the best of all in our experience being *Cotoneaster horizontalis Davidiana,* with small boxlike foliage, flowering with small flowers, white, followed by coral red berries. *Cotoneaster microphylla* is also good, but not as hardy. *Cotoneaster applanata* is one of the latest kinds, it looks good to us, though we have only grown it for a short while.

For this same kind of work, the *Euonymus Carrieri* and *vegetus* should not be overlooked. They are the larger leaf varieties of *Euonymus radicans,* from which they are supposed to be sports, though I can hardly believe this of vegetus, which carries an orange colored berry, a thing which is entirely lacking on the ordinary *"radicans."* These have sprung considerable in demand of late. *Vegetus* looks to me to be the best, they are both creepers or climbers.

As said before, the Juniper family furnishes us with a good many desirable kinds, though we have to be most careful in the placing of them, they are very susceptible to red spider, in dry summers, or if placed in spots too near to buildings. *Juniperus stricta* is specially afflicted, though it is a beautiful dwarf growing plant. Among the others I would mention, *J. suecica,* resembling Irish Juniper, but being hardier. *Pfitzeriana,* a new variety, good grower, readily transplanted and coming fast into favor. *Virginiana glauca, Schotti, elegantissima, globosa, Sabina, Sinensis* and *Neoboriense* being all leaders in my estimation. There is also a great demand for the ordinary red Cedar in these days, especially for formal effects, vista planting, etc.

If the size of place allows it, pines should be freely planted by the landscape architect, and a nurseryman does well to have a good supply of these on hand. White Pine, has been the most favored so far, but is fast becoming a back number, on account of the various diseases and insects which hinder its proper development. Scotch and Austrian Pines are better, while in sheltered positions, the Bhotan Pine cannot be excelled for beauty. It is not so hardy however. *Pinus Mugho* and *cembra* need no further recommendation. On the other hand, we find some other varieties coming to the fore, namely



New frost and fire proof storage house at the Prudential Nursery Co., Inc., Kalamazoo, Mich. Constructed of Dennison Interlocking Tile, affording twelve and one-half inch walls with five air spaces. It has a double roof with one and three-fourths inch air chamber lined with half inch linofelt insulator, and the whole covered with Asbestos Roofing. It has a perfect ventilating system and an abundance of natural light; is wired for electricity for evening work, connected with the city water mains, and has railroad switch direct to building, enabling us to load several cars at a time. Dimensions—200 feet long, 80 feet wide.

Pinus resinosa, resembling somewhat the Austrian Pine. though it is a more rapid grower. *Pinus monticola,* which is the Western White Pine. It resembles the white pines in general appearance, is not so tall a grower, but so far is free from insects or diseases.

Pinus flexilis reminds one somewhat of *Pinus Cembra,* but it is a taller grower.

Of the Retinisporas, I don't know any new kind specially to be recommended. These plants are so well known and so much used, it is most unnecessary to mention them. I would prefer the obtusa varieties to the pisifera kinds, they are hardier, but not so easily transplanted and much more difficult to propagate and consequently a good deal more expensive, and not so easily obtained.

The Yew is, so to speak, one of the coming evergreens. The English Yew while it makes a beautiful plant on the other side of the ocean, is no good in this climate, neither is the Irish Yew. This is too bad, they both would be so valuable for the landscape man. For hedging, I believe the Japan Yew, *Taxus cuspidata* is the coming plant. It will outdistance the Arbor Vitae and the Hemlock. We have grown this kind for a few years now and find it perfectly hardy. It stands up much better than the arbor vitae, retains its color in the winter, and is not subject to the searing of the foliage by the cold spring winds, like that of the Hemlock. It also will stand shearing much better. In fact in general appearance it resembles very much the English Yew, which it outclasses, however, in hardiness.

A better variety yet is the so called *Taxus cuspidata capitata,* this however can only be propagated by grafting and in order to retain the pyramidal effect, only leader shoots can be used, side shoots causing an ill-shaped plant and making it nearly impossible to grow it in pyramidal shape. The grafting process makes these plants expensive and it does not look as if they ever could be bought at a reasonable price so that they can be used extensively for hedging.

The seedling *Taxus cuspidata* will be the winner I think.

Of course *T. cuspidata brevifolia* is also a good plant, but can only be used for certain purposes, it being a rather irregular grower. Its dark green foliage and its hardiness make it a desirable species however.

For border planting or small hedges, we would recommend the *Taxus repandens,* it cannot be excelled for this, especially when used for bordering Rhododendron beds.



Everbearing Strawberry Breeding grounds. The Gardner Nursery Co., Osage, Iowa. Photo taken in September.

IMPORTANT

On the night of March 13th, the post office at Dresher, Pa., was robbed and all mail stolen. If you have sent any letters to the undersigned, and received no reply, please send duplicate of the letter at once.

THOMAS MEEHAN & SONS.

THE GARDNER NURSERY CO., OSAGE, IOWA

THE Gardner Nurseries were established in 1869 by Mr. Charles F. Gardner and were conducted by Mr. Gardner and his sons until 1901 at which time the business was incorporated, with Charles F. Gardner and Clark E. Gardner as owners of the $50,000.00 capital stock.

In the early days most of the business was secured through agents, but later on a Mail Order Department was started and this grew so fast that the agency work was finally dropped, and all sales are now made direct with customers by mail and come from all over the United States and Canada.

Up to about ten years ago evergreens were a leading specialty with the Gardners, but as the heavy demands came in for fruit trees, small fruits, ornamentals, etc., etc., the evergreen line was gradually curtailed, and more attention given to the more active lines. For the past eight years Mr. Charles F. Gardner has devoted a large part of his time at work with the new race of everbearing strawberries. At the present time they have hundreds of new hybrids that were selected from many thousands of seedlings that are showing up extra strong. Among them may be found strawberries of every size, shape, color and flavor of the common once a year fruiting sorts, but these new varieties instead of simply bearing for a couple of weeks, at regular strawberry season, continue fruiting heavily all through the summer and fall months. Plants of these new varieties set in spring, will bear a big crop of berries the same summer, and fall plants are set and come through the winter ready to go at it again the next spring. The Gardners propheey is that the everbearing strawberries will take the place of the common once a year fruiting sorts, in a few years time.

Nurserymen as a class have been very slow to look into the merits of these new strawberries, but during the past year there has been a marked change in attitude and now there is a great scramble to get on the bank wagon. Still even now, you will find here and there a well meaning authority on horticulture who will solemnly declare that there is no such animal, or if there is such a fruit it is worthless. Some such parties admit there is such a fruit in successful bearing, but take the point that people do not care for strawberries out of season, or that the fruit will not stand the competition of the summer fruits such as grapes, peaches, etc., etc. The Gardners have proved all of the above to be fallacies. During the summer and fall of 1915, they picked and sold exactly 22,563 quarts of everbearing strawberries, getting at wholesale from 15 to 26½ cents per quart net. They found people just as ready buyers all during the summer and fall and in the spring and that strawberries topped the markets in competition with all other fruits.

Another line of work the Gardners are interested in is



Oriental Poppies and other hardy out-of-door flowers on grounds of the Gardner Nursery Co., Osage, Iowa.

in breeding the plum. They started this work using a Japan-American cross originated by the late Prof. J. L. Budd at Agricultural College, Ames, Iowa. From this base they have been at work for the past twenty years, and during this time have made hundreds of crosses and selected the cream from many thousands of seedlings. They now have 65 new varieties that are nearly through the testing period. The fruits run large to extra large, and of most excellent flavor and appearance, just the kind to compete with European and other foreign types of this fruit.

A very interesting experiment well under way, was the crossing of the English Walnut with the hardy native Butternut. The Gardners have 45 trees eight years old that are perfectly hardy having already gone through 40 degrees below zero without touching them in the least. The trees show the English walnut in wood and foliage but have not fruited as yet. Some interesting results are expected from these trees.

Mountain ash are grown in large quantities. The trees as shown in photograph were planted eight years ago. We have a row on both sides of our main driveway and they make a very pretty effect at all times of the year.

The Gardners invite nurserymen and horticulturists, especially the skeptical ones, to visit their grounds during fruiting season, which is any time during August, September, or before heavy freezing weather in late October. They will have over 50 acres set solid with everbearing strawberries the coming season.



Picking Everbearing Strawberries in October at Bert Baker's, Hoosic Falls, New York.
The last berries were picked Thanksgiving Day.

EVERBEARING STRAWBERRIES

By Bert Baker.

The Everbearing strawberry is probably the greatest and most valuable introduction in small fruits for many years. Fresh strawberries can now be grown by anyone, who has even a small plot of ground, for nearly five months in the year. They require no different treatment than ordinary strawberries, excepting the season the plants are set the blossoms should be kept picked off until the fore part of July, then in from three to four weeks, depending on the weather, they will begin to fruit and will continue until the ground freezes, the next spring they begin to fruit the same time as the common varieties, and they are very heavy spring croppers. After this crop they are idle but a few days before they begin fruiting again and continue until heavy frosts.

We have had considerable experience with them for the last six years, and have been very successful in growing them. This past fall we picked 170 bushels of berries mostly Superb and Progressive, these are the varieties which succeed best with us.

FIRE AT THE ENID NURSERIES, ENID, OKLAHOMA

A fire presumably caused by boys playing with matches caused the destruction of the packing sheds of the Enid Nursery Company, Enid, Oklahoma, on Thursday, March 9th, entailing a damage to the amount of $4,000.00. One shipment of trees for New Mexico just ready to be shipped was entirely burned up. Otherwise the stock consumed consisted of alfalfa hay and kaffir corn.

The loss was very serious at this time of the year as it almost destroyed the three baling machines and all burlap and packing material.

Good work by the firemen saved the west end of the nursery building, which was partly of cement, from destruction. Fortunately no damage was done to the office, which was directly north of the destroyed buildings and only a short distance away.

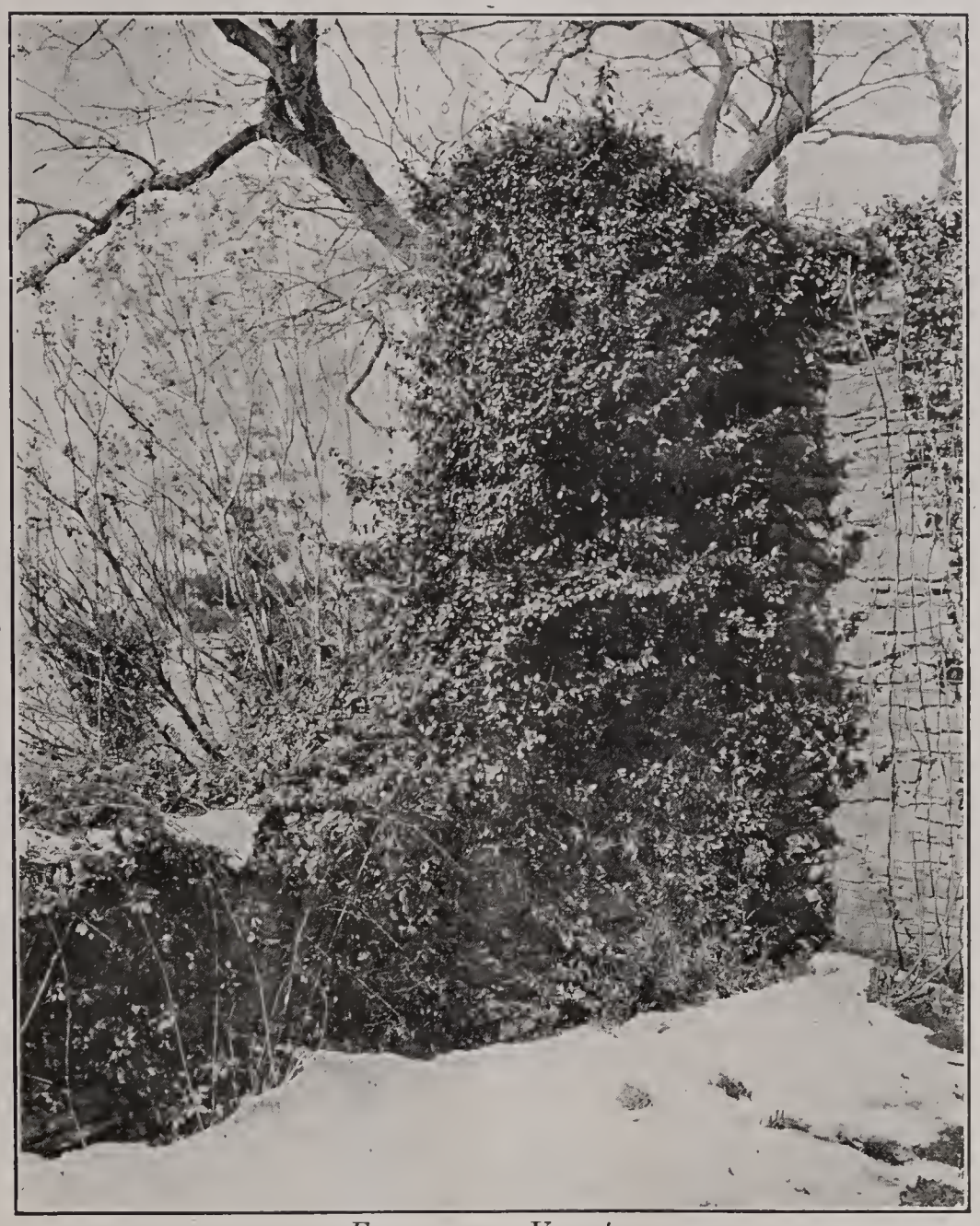
J. A. Lopeman, proprietor, states that there will be little or no delay in shipment as the packing will be done out of doors until better building can be erected.

Photographs received from Willis E. Fryer, Mantorville, Minn., shows a beautiful display of Paeonies and Phlox, the latter being especially fine, having huge trusses of flowers, indicating that they are entirely at home in this northern latitude.

George F. Verhalen, wholesale grower of roses and shrubbery, Scottsville, Texas, called at the publishing office of the "National Nurseryman" while on a visit to Rochester.

A letter frm Verkade Van Kleef, Waddinxveen, Holland, under date of February 18th says "Today I came home, after having served as a soldier for almost 19 months, and am glad to be able to attend to my business personally again."

McHutchison & Company, of New York, had 24 consignments of French ornamentals on the S. S. Maroni, which was sunk by the German cruiser "Moewe." There were also many other consignments of nursery stock on this steamer.



Euonymus Vegetus
This photograph was taken about March first, 1916, and shows how well the foliage stands the winter.

EUONYMUS VEGETUS

Euonymus Vegetus which has popularly been christened as the Evergreen Bittersweet because of the red beries that this vine bears in the fall of the year, and resembles our native bittersweet in every way.

The leaves of this variety are larger than *E. Radicans*, are more leathery and shiny. This vine is destined to excell even the popularity of the English Ivy because it will retain its green foliage all through the winter, and even those warm mild days in the early spring, that are the most dangerous periods for evergreen vines, have no effect on the coloring of these leaves. In the fall of the year, the red berries appear in clusters and against the thickly matted, green foliage, they are a wonderfully pretty and most attractive sight to behold.

ADOLF MULLER,
DeKalb Nurseries, Norristown, Pa.

A PATRIOT

The following letter from Edwin H. Carter, landscape architect, Toronto, Canada, an old subscriber to the "National Nurseryman" brings the consequences of the war very close to home.

"Kindly take my name off your list of subscribers. I am expecting an early call to the front. My four sons have already gone.

Hope to again take your paper in happier times."

We sincerely wish Mr. Carter and his four sons a speedy and safe return.—*Editor.*

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Official Journal of American Association of Nurserymen

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900

SUBSCRIPTION RATES

One Year in Advance $1.00
Six Months ..... .75
Foreign Subscriptions, in advance $1.50
Six Months $1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested by the Business Manager, Rochester, N. Y.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

Entered in the Post Office at Rochester, N. Y., as second-class matter.

Rochester, N. Y., April, 1916.

THE FUTURE OF THE NURSERY BUSINESS

It is futile to try and look into the future, yet we are always trying to do so and the man that makes the best guess and acts upon it is usually the most successful.

Just at present, owing to the great war, all precedents are broken and we have nothing to guide us in our judgments. Some are predicting dire results to business conditions in the United States, and have many arguments to support their contentions, while others are very optimistic and predict extraordinary good times at the conclusion of peace.

The products of the nurseryman are of the two classes, necessities, viz. fruits, and luxuries, ornamentals.

Without considering foreign exports at all, it will take quite a little fruit to supply the needs of our own 100,000,000 population and whatever happens this demand will have to be supplied, so that fundamentally it is quite safe for the nurseryman to keep on growing trees.

As it is quite possible for the individual to starve in a land of plenty, so it is possible for the nurseryman to fail unless he equips himself to meet the needs of the particular trade or locality which he is catering to. An optimistic vision and a fixed purpose is sure to be more successful than one of fear and vacillating purpose.

When we try to look into the future to guide us in planning for the growing of ornamentals, one is just as likely to be overwhelmed with the tremendous field for exploitation.

A country of countless cities of incalculable wealth just coming out of the raw, cities and communities that have up until now been mostly pioneer in their work and building, filled with people eager for more education and refinement, thousands of them having more wealth than is needed for necessities which must find its way to those catering to the refinements of life.

It will be the nurseryman's own fault if the cities do not spend more on their parks and boulevards, or if the grounds of the homes are not as well kept as the interiors. Absolute faith in the steady and rapid progress and development of our country is the only sane outlook, and the nurseryman who plans and builds accordingly is the one who will most likely be successful.

DELAY IN THE FOREIGN MAILS

There is considerable feeling being expressed by nurserymen doing a foreign business on account of the British censorship of the mails.

The holding up of the consular invoices, and the restriction of cable messages, to say nothing of the delay and loss occasioned by delayed shipments of perishable nursery stock, is quite sufficient to arouse indignation, especially as the United States and Holland are both neutral countries.

Possibly agitation will help to improve conditions, but after all we ought to give to those in Washington who are guiding the Ship of State through such critical times credit for doing the best they can for the good of the greatest number.

When a good part of the world is at war, even the neutral part is bound to feel the effects, and when we compare our own losses with those of our brother nurserymen in France, Germany, England and other countries now at war, it should make us feel grateful we are not in the strife.

Countries at war are very like men in a passion, not very considerate of the rights of neutrals and apt to strike in blindness even their own friends.

It calls for a high grade of patriotism to grin and bear a personal loss and at the same time have faith in and support the government, or those we think could have prevented it, yet in such times as these it is such patriotism that is most needed.

The National Nurseryman,
Livingston Building, Rochester, N. Y.
Dear Sir:—

Kindly fine enclosed check for (one dollar), which renew my subscription. (I cannot do without the valuable magazine).

Very truly yours,
CHAS. H. SLATEK.

Obituary.

LYMAN CURTIS.

We regret to have to report the death of Mr. Lyman Curtis, of Lyman Curtis & Son, Flint, Michigan. Mr. Curtis was one of the pioneer nurserymen of Michigan, locating there thirty years ago and has taken active part in the business which he founded, until very recently. He died at his home on March 3rd, at the age of 73, after a brief illness.

HORTICULTURE AS KING

Editor "National Nurseryman":—

I have enjoyed extensively each and every issue of the National Nurseryman for the past five or six years. Articles pertaining to the growing, shipping and planting of nursery stock, legislation relative to inspection, quarantines, etc., reports of conventions, including addresses by our foremost American nurserymen, various discussions touching on all phases of nursery work, all have been very interesting as well as educational.

Not until now have I ever offered anything, nor entered into a discussion of any kind in this or any other trade paper, but the reply to "Horticulture as King" in the March number, asserting "That no man labors harder with his head and his hands than the nurseryman; also, that there is no business in which there is so little actual profit," compels me to take issue. I have yet to see a nursery establishment in which the employees, or even the employer, show any ill effect from overwork, either physically or mentally. Ordinarily, they are perfect specimens of health and vigor, due, I presume, to fresh air and plenty to eat.

I assume actual profit means net profit. I have heard many times that the nurseryman's large margin of profit is responsible for the slip-shod manner in which a good many do business. (One wouldn't suspect much truth in this if he takes a slant at the wages paid in most nurseries.)

With the large margin of profit, the nurserymen have not felt the need of scientific management until recently, due to the many new concerns entering the business each years, thus making competition a little sharper. As competition grows, and in order that the nurserymen maintain the present good profit, they will have to adopt more of the business principles employed by other industries under the head of scientific management. Did you ever send an order, with instructions to ship at once, to a concern whose advertisements appear in the trade papers and receive acknowledgement two or three weeks later, stating it was unable to supply? Is this scheme a business getter? Is it enterprising?

Having the business spells profit, providing it is properly managed. One shouldn't hamper the profits by spreading his plant or growing extensively unless he has assurances of increased business. An established business, employing twenty-five or fifty men, or more, not enjoying a handsome profit, is clear evidence of poor management. Not long ago, a foreman on a comparatively small nursery, who had between forty and fifty men most of the year, claimed more work, consequently more profit, could be turned over with thirty or thirty-five men of the right stripe. An efficient nursery force, like an engine, must operate with a minimum loss of energy.

Why permit a man to make twenty trips a day to the pot shed for as many strings of pots when one or two trips with a wheel-barrow will furnish enough for the day? Why start a couple of men around the nursery to fill a five dollar order, when they can conveniently handle twenty or thirty dollars worth of business? Cost of production in this business is rather hard to determine, but there are plenty of ways that can be shortened considerably. Standardize what can be, and require the standard. When a man falls below the standard, place him where he will be of most value.

One thing I see a great deal among our nurserymen, is their boast of acreage. Does this swell your buisness? Does it indicate in any way the superiority of stock, or does it mean you will likely have more for the fire in the spring?

You know, to follow the reports of some concerns, burning of stock seems to be the principal occupation. I have been associated with a concern that hasn't set fire to $100 worth of stock in ten years. Why spread over a hundred acres what can be grown on fifty or sixty? Most herbaceous plants, for example, and a good many small growing deciduous shrubs, will grow just as well planted ten to twelve inches apart for a couple of years as they will at eighteen or twenty-four inches, unless you are growing in quantities, expecting to burn twenty-five or fifty per cent. in three or four years, why grow ten thousand of a thing when five thousand will take care of the demand? In my opinion, it is far better and decicedly more profitable to sell your five thousand and have to buy, rather than grow ten thousand and have to burn.

With proper office records, good outdoor management, close buying and selling, the nursery business will pay just as much profit for every dollar in business as any other legitimate business.

I must add that live wires in the work do not seem as plentiful as in other lines of work. Any beginner in the business manifesting an interest in your work, studies hard, follows the other man and looks as though he will be of value in the future, do not fail to do all in your power to retain him. I am young in the business but I can recall at least six live wires that gave up the nursery business because their employers failed to recognize their ability. Other industries are constantly on the lookout for such men, why shouldn't our business be doing it?

C. H. Sample.

A GOOD CATALOGUE

There are many good nurserymen's retail catalogues published annually in the United States. Among those especially worthy of note is that of Holm & Olsen, Inc., St. Paul, Minn. "Creating Your Landscape." It is extremely attractive and hardly likely to find its way into the waste basket even by an uninterested recipient.

Its strongest feature is its being built to the needs of the customer rather than an offering of what the firm has to sell, yet it presents its goods to the customer in the most interesting way.

It should prove an honest, capable salesman.

DOES IT PAY TO BEAUTIFY THE FARM?

A Prize Essay by Dorothy Loomis, Madison, Wis. Copyrighted by the Wisconsin State Horticultural Society. Published by courtesy of that Society.

MORE and more the American world is learning to appreciate beauty and Art and, American like, is willing to pay for it. It is surprising what the effect of this has been on some forms of business. Take the theatre for instance, or the department store. Stage settings have increased in beauty and consequently in the cost of production, and large sums of money are now spent in department stores for the decoration of show windows. In both cases the production of beauty is a well laid scheme for attracting the public, and the policy is pursued not for Art's sake at all but because Art can be turned into pure gain.

And as it is with these and many other widely diversified trades so it is with the business of farming. Is a bare, ugly, farmstead a good business proposition? Can you afford not to beautify your farm? No, especially when you think of your farm as the stage setting of your part in life and your front yard as the show window of your character.

But this consideration, though true, is abstract. You wish of course to put things on a practical basis and that is first what I am endeavoring to do. You want to be assured that it does pay to beautify your farm and you want to know how it can be done so as to make the beautiful at the same time profitable.

Most of us feel that our practical side must be satisfied before we try to please our aesthetic sense but if we can be made to feel that we are killing two birds with one stone in satisfying both sides of our nature we have reason to be pleased. And on a fruit farm more than any other we can have that feeling for the orchard and its accessories can be made to serve the double purpose of utility and beauty.

Then getting down to brass tacks, in what ways does it pay to beautify the farm?

First is the increase in value which is bound to follow any effort to make your place more attractive. Any farmstead whose house is framed with trees, whose porches are shaded with vines, whose front yard is a smooth expanse of lawn, whose objectionable features are screened from view by a pleasing arrangement of trees, shrubs and vines has risen in value entirely out of proportion to the money and time spent on it, while a neighboring farm with land just as good, and buildings just as expensive will not be so likely to sell for what it is worth as long as it stands bleak and bare, without any shrubs to soften the harsh outlines of the house, or vines to conceal discrepancies and the ugliness of its outbuildings, while no trees frame its view, or that view is cut off by something ugly, and while its front yard is still a pigsty.

Prospective buyers unless possessing a vivid and constructive imagination will not look beyond difficulties like the foregoing and the psychological effect of the two different kinds of farmyard treatment will make an astounding difference when it comes to dollars and cents.

But this is only making beauty pay if we are selling the farm, but what if we intend to keep it as most of us do. Does it still pay to make improvements? One would almost be tempted to say that it is more profitable to keep a beautiful farm than to sell it.

The appearance of a place is the criterion of the kind of people who own it. Scrub cattle, dirty milk, wormy fruit, poor vegetables are expected from farms with unpainted buildings, a filthy barnyard, an unornamented house and scrub chickens running about the front yard. You do not care to see the farmer and much less do you wish to buy anything from him. And yet you can travel through the country and see just such or worse looking farms than this, and so numerous that the nice looking farmsteads are the exception and you come to feel that farm life must be a hideous thing. Would you prefer to trade at a farm like one of these or would you go farther up the road where a spick and span yard, fine trees and a well cared for garden indicate thrift, care and intelligence? You cannot help but feel that anyone who will spend thought and care on beautifying his farm will bend every effort to make his produce desirable. You may not have thought out the relation of a well kept yard to the character of the owner and the nature of his goods. You have merely been attracted by the show window of his front yard, an advertisement which has brought you in and then prompted you to buy.

And while we are speaking of the element of advertisement in the effect of an attractive farm upon a passer-by, let me say that nothing has a greater influence than the approach to a place and the view you get of it from the road. A good gateway above which is placed a neat and artistic sign giving the name of the place and its owner, does a great deal for advertisement. Your drive must be direct but let it be pleasing, and let it lead to the house in such a way that you get the best view of it.

The house should be partly hidden, but not obliterated by trees, especially evergreens which give a gloomy look when planted close to the house. The lawn should have a graceful sweep and not be broken up by gaudy flower beds, and dotted with fresh shrubs and trees. The shrubbery should hang together and have a definite purpose.

The annual beds and fancy varieties of shrubs and trees are not for the farmer. He has not the time nor money to spend on anything but what will grow in beauty and have lasting charm. Therefore he will plant the American elm and the oak, and will avoid those weeping and cut-leaved varieties of trees, of which he will quickly tire. All of his plant materials must be thoroughly hardy to his region, for what he plants, must stay as he has not the time for replanting every year. And best of all those things which will make his grounds most beautiful are growing wild in his own woods or that of his neighbors and require little expense to transplant and make his own.

This problem of beautifying the farm is as you see neither a great nor expensive one and is less so if you are a fruit grower, for the orchards may be so situated so that they furnish a delightful view from your porches or

windows or be a source of pleasure to the passers-by. By the arrangement of trees and by supplying of other kinds of trees a transition can be made from the orchard to the lawn trees and shrubs, so that the picture becomes one harmonious whole. This can be done by the use of sueh trees and shrubs as the flowering erab, the quince, almond, hawthorn, wild cherry and pear with the repetition of the tree with which the orehard is planted.

The aeeessories of the orchard of which I spoke before, and which consist of wind breaks and bird garden can be worked in also to serve a beautiful as well as utilitarian purpose.

The windbreak has become a necessity in a country of high, drying winds. It may be either of deciduous or evergreen trees, (exeepting of eourse the red eedar) and the same general scheme in planting a windbreak may be used to screen unsightly objeets, giving unity to the whole. The windbreak may be made into a very charming affair by the use of various kinds of trees, shrubs, vines and perennials and still be as practical as it is beautiful.

The same is true of a bird garden which a great many still feel to be an extravaganee and very little has been done so far in establishing them among fruit growers. It is acknowledged, however, that birds control to a large extent inseet pests on fruit trees. Some experts estimate that Ameriean farmers are saved $400,000,000 annually by birds who eat inseets that injure their erops.

Surely sueh friends of the farmer deserve encouragement and may be kept from eating orehard fruit by the planting of other kinds, that the birds will prefer. When you know that the birds will leave your eherries to eat mulberries, it ought to be some ineentive to plant those bushes that take them from your fruit and offer food and shelter for them while they keep your erops from the ravages of inseets.

If breeding places are offered them shrubbery thiekets and water supplied to them, if food is offered them by planting those trees whose fruit they like, then the birds will flock to your home and be a souree of pleasure as well as profit to you. The bird garden will be a delight to your family as well as to the birds and with a trumpet creeper to attraet the humming bird the pleasure of your bird garden will be eomplete.

All of the plant materials sueh as alders, viburnums, elders, dogwood, sumaeh, ete., whieh are attraetive as well as useful for furnishing food and shelter for the birds may be found in your own or a neighboring woodlot and may be transplanted with little trouble or expense.

And while we are speaking of wood lots let me add that here is another spot which can be beautiful as well as useful. By taking plants away to transplant elsewhere and by eleaning out dead material a chance is given for those left to expand and take on a more perfect shape. Also in thinning out, some of the plants can be sold to nurserymen while you still have enuogh for your own use. And besides selling shrubs from your wood-lot money can be made in other kinds of flowers. Sueh as irises which can be planted in your marsh, marsh marigolds, and narcissus and daffodils which can be scattered through your meadows without injuring your hay crop.

These bloom year after year the narcissus always increasing in beauty. Also there are perennials which are planted along your wind break and shrubbery borders.

These flowers are the delight of the children who can pick and sell them with profit. And if we are going to make the farm pay ultimtely we must keep the young people on it contented and happy with lives full of interest. We must satisfy the eravings of the women, whose love for beauty and hunger for it is most generally keener than a man's. This can often be done just by a little flower garden which holds a charm which the other features on a farm lack.

For as we think back we like best to remember about the farm, not the hard work, the harsh realities, or such detached delights as pure bred herds or a splendid orehard, which, however, paid the bills and were our chief source of income. What we like to remember is a composite picture, a sum of warm, happy days, the hard work and ugly features in the background and the pleasant ones brought forth and idealized. Why cannot we then, in actuality, push back and screen from view, the unpleasant, and make the best of what we have on hand with what little time and money is necessary to make beauty a paying investment.

In this my last plea that it pays to beautify your farm. I would ask you whether, when you have grown old, when the trees you have planted have waxed in beauty, when your children return to the farm because it is home and beautiful, when a woman's life has become richer and happier beeause there has been beauty added to it; when you, yourself have been broadened and made better by each attempt to beautify, and your attachment for your plaee has grown with every plant you have placed in your door yard, I ask you whether aside from all consideration of profit in dollars and eents you will have not found that in the long run beauty will pay for itself.



From the U.S.D.of A.

United States Department of Agriculture,
Office of the Seeretary, Federal Horticultural Board

AMENDMENT NO. 1 TO NOTICE OF QUARANTINE NO 7.

WHITE PINE BLISTER RUST

The fact has been determined by the Seeretary of Agriculture that a tree disease known as White Pine Blister Rust (*Peridermium strobi Kleb.*), not heretofore widely prevalent or distributed within and throughout the United States, exists in the Dominion of Canada and in Newfoundland.

Now, therefore, I, David F. Houston, Seeretary of Agriculture, under authority conferred by section 7 of the act approved August 20, 1912, known as "The Plant Quarantine Act" (37 Stat., 315), do hereby declare that it is necessary, in order to prevent the further introduction into the United States of the White Pine Blister Rust, to forbid the importation into the United States from the Dominion of Canada and Newfoundland of all five-leaved pines, and all species and varieties of the genera *Ribes* and

Grossularia known to be carriers of this dangerous disease.

On and after March 13 1913, and until further notice, by virtue of said section 7 of the act of Congress approved August 20, 1912, the importation from the Dominion of Canada and Newfoundland of all five-leafed pines and all species and varieties of the genera *Ribes* and *Grossularia*, except for experimental or scientific purposes by the Department of Agriculture, is prohibited.

Notice of Quarantine No. 7 is amended accordingly.

Done at Washington this 29th day of February, 1916.

Witness my hand and the seal of the United States Department of Agriculture.

D. F. Houston, *Secretary of Agriculture.*

PLANTS FROM CHINA

The third expedition into China to discover new plants suitable for introduction into the United States has been completed by F. N. Meyer, plant explorer of the U. S. Department of Agriculture, who has just returned to Washington after a three-year trip in the Far East. As a result of this expedition through the center of China, and two previous explorations of similar duration covering extremely cold Manchurian regions and the arid regions of Chinese Turkestan, there have been sent to America for planting and testing for commercial adaptability, seeds, roots, or cuttings of some 3,000 food and forage plants, flowers, ornamental shrubs and vines, shade and timber trees.

Of the many specimens forwarded to this country during the last expedition, the specialists regard as most significant the jujube, a fruit new to this country, which may be suitable for use in the Southwest; a wild peach resistant to alkali, cold, and drought, the root system of which offers great possibilities as a grafting host; certain Chinese persimmons larger than any hitherto known in this country; a number of aquatic food roots and vegetables which offer promising possibilities for the utilization of swamp land; some thirty varieties of vegetable and timber bamboos; and a number of Chinese vegetables, bush and climber roses, shrubs and trees.

Of scientific rather than commercial interest is the discovery on this expedition, near Hangchau, of a hickory tree, the first found in China. The existence of this tree, together with the facts that the sassafras and tulip trees are common in both countries and the Chinese tea box tree is closely related to the sweet gum of the South, confirms the fact that the flora of the southeastern United States and that of sections of China are closely related. Another discovery of botanical interest was the finding in a remote and hitherto unvisited valley in Tibet of a hazel tree 100 feet high—a surprising departure from the hazel bush. Elsewhere English walnuts were discovered in a wild state; and the discovery of the wild peach is regarded as significant because it seems to establish that the peach may have been a native of China rather than of Persia, to which its origin has been ascribed. The discoveries of native and hardy oranges and other citrus fruits, a number of which have been brought to this country for breeding work, give added evidence that China was the home of the orange, which was introduced into other countries probably by early Portuguese travelers. Similarly many plants commonly ascribed to other countries, such as the wistaria, chrysanthemum, lilac, azalea, and certain peonies and rambler roses, have been developed by the Chinese, although, because they reach Caucasian use through other nearby nations, their Chinese origin often has been overlooked.

In the last trip the explorer penetrated through the center of China 1,500 miles on foot to the borders of Tibet and returned to the coast by a different route. On this expedition he covered territory the agricultural conditions of which are very similar to those of the southern Rocky Mountain regions and portions of the Great Plains.

In this territory, the most important discovery probably was the jujube tree, which bears a heavy crop of a brownish fruit, which is delicious when fresh and when dried offers a confection very similar in taste to the Persian date. This tree is of particular interest to the Department because it can withstand the cold and drought and neglect. The section in which it is productive in China is a semiarid belt where winter temperatures do not go much below zero Fahrenheit. This indicates that it would be of particular value to Texas, California, New Mexico, Arizona, southern Utah, and perhaps even farther north. Already, several thousand seedlings have been grown at the Plant Introduction Garden at Chico, California, from the specimens sent to this country, and some of these have borne desirable fruit, which confirms the experimenters in their belief that this tree may contribute a new fruit industry to the sections indicated.

The wild peach discovered in China, and now brought to this country for the first time, is considered of great interest, although its fruit is not desirable. Investigation in its native habitat showed that the roots of this plant are not as susceptible as our native peach to alkali in the soil, while it will withstand cold and does not require much moisture. Experiments are under way, therefore, to determine the usefulness of the rootstock of this peach for grafting with different hardy American varieties. If success is achieved, the specialists believe that they can develop peach trees which will make possible the raising of peaches in the Southwestern or alkaline sections, and at the same time offer possibilities of peach cultivation in many droughty and cold regions, and possibly even into portions of Iowa beyond the northern edge of our present peach region.

This and other explorations have given to this country a Chinese cherry, very successful in California because of its early maturity; and a number of varieties of wild pears and apples, wild almonds, and hardy citrus fruits which offer possibilities for hybridization with American varieties.

The explorer also brought over specimens of the Chinese pistache tree, which it is hoped will give the United States a new and valuable tree for the adornment of city avenues in Georgia, Alabama, the Carolinas, Florida, Texas, California, Arizona, and Oregon. Plantings were also secured on this trip of a Chinese white pine tree remarkable for its white bark. One of these specimens which Mr. Meyer brought has been planted on the grave of the late Minister to China, W. W. Rockhill, who once expressed in the explorer's hearing a wish that this be done. Because of its drought-resisting qualities, this strikingly ornamental tree offers possibilities for the

beautification of parks and grounds in Arizona, Texas, New Mexico and California.

Especial attention was given on this trip to investigations of chestnut blight, which was found by the explorer first in China and later on in Japan. In the eastern United States this blight appears in virulent form and is exterminating our beloved chestnut. The explorer, however, found Chinese chestnut trees which were to some degree blight resistant. Many of these trees have suffered from the disease but had apparently recovered from severe attacks and succeeded in covering the old scars with new wood.

To lovers of flowers the new Chinese rose known as the *Rosa xanthina* should be of special interest, particularly in view of the fact that there is at present a great demand for yellow roses. This bush has small, light yellow flowers, but its great quality is its hardiness which will enable it to flourish in the North even as far as Canada. The chief promise of this rose, however, lies in the fact that it will in all probability lead to the production of new hardy types of yellow roses adapted to cultivation in America. It may produce varieties which will not drop their leaves like our Persian yellow roses do and yield varieties with larger and more showy flowers. In addition, the explorer found a number of new rambler roses, particularly yellow ramblers which, if locally successful, will meet a demand for a climbing rose with a flower differing in shade from the crimson and pink flowers of the well-known rambler varieties.

AMERICAN AZALEAS AND OTHER PLANTS AT THE ARNOLD ARBORETUM

NO other plants add more to the beauty of mountain slopes and forest glades in eastern North America than Azaleas, which are more abundant and more varied in the color of their flowers in the Appalachian region than in any other part of the world. Of the ten species found in the eastern United States seven are established in the Arboretum, and the others from the extreme south, although in the Arboretum nurseries, are too young to show their ability to withstand the rigors of the New England climate. All Azaleas are now called Rhododendrons. The first species to bloom, *R. Vaseyi*, begins to flower the beginning of May, and the flowers of the last, *R. viscosum*, can be found as late as the middle of July. The Azalea season is therefore a long one. *R. Vaseyi* is a tall shrub with slender stems and of open irregular habit; in its home in a few isolated mountain valleys in South Carolina it sometimes grows to the height of fifteen feet. The flowers are produced before the leaves appear, in small compact clusters, and are pure pink in color, plants with white flowers occasionally appearing. With *R. Vaseyi* the Rhodora (*R. canadense*) blooms. This is a well known dwarf shrub often covering in the north large areas of swampy land with a sheet of bloom. The small flowers, however, are of a rather unattractive rose-purple color. Naturally the Rhodora grows from Newfoundland to Pennsylvania and New Jersey. The next to bloom are *R. canescens* and *R. nudiflorum*, and although the two sometimes grow together the former is a northern and the latter a more southern plant, and is especially common in the Gulf States from eastern Florida to eastern Texas. The rosy pink flowers of these plants open before or with the unfolding of the leaves, and in early spring fill the woods with their beauty and fragrance. These plants can now be seen in flower on Azalea Path and there is a mass of *R. canescens* on the Meadow Road in front of the Linden Group. *R. calendulaceum* is the next species to flower, and a few plants have already opened their orange, yellow or reddish flowers which are not fragrant. This shrub is an inhabitant of the mountain regions from southern New York to Georgia, and is extremely abundant on the lower slopes of the high mountains of North Carolina and Tennessee. In flower it is the most showy of the American Azaleas established in the Arboretum, and one of the most beautiful of all flowering shrubs. A large mass of this Azalea has been planted on the slope below Azalea Path, and occasionally large specimens can be seen on the border plantations along some of the roads. The next species to flower, *R. arborescens*, is also a native of the mountain region from Pennsylvania to Georgia where in sheltered valleys it sometimes grows from fifteen to eighteen feet tall. The flowers, which appear after the leaves are nearly fully grown, are white or faintly tinged with rose color, and are made conspicuous by the long bright red filaments of the stamens; they are very fragrant, and the young leaves have the odor of new mown grass. Less showy in the color of the flowers, perhaps, than the yellow-flowered Azalea, it is one of the most beautiful of all hardy Azaleas. The last species to flower, the Clammy Azalea or Swamp Honeysuckle, *R. viscosum*, is a common inhabitant of the swamps of the eastern states, especially of those in the neighborhood of the coast. The small flowers are pure white and covered with clammy hairs, and the leaves are often of a pale bluish color, especially on the lower surface. This plant is valuable for the lateness of its flowers which do not open before the flowers of most hardy shrubs have passed, and for their fragrance. These shrubs are all good garden plants although, like other Rhododendrons, they cannot be made to live in soil impregnated with lime. They are not often cultivated, however, because it is not easy to find them in nurseries, for few nurserymen in the United States care to take the time and trouble to raise such plants from seeds, the only successful way in which they can be propagated.

The New Chinese Cotoneasters.

Of the shrubs introduced from western China by Wilson the most successful perhaps as garden plants belong to the Old World genus Cotoneaster. At least eighteen of these species are hardy in the Arboretum, and several of the plants have now grown large enough to show their habit, the beauty of their flowers and fruits, the brilliancy of their foliage and their ability to adapt themselves to the peculiarities of the New England climate. The most showy species now in flower are *C. multiflora* and its variety *calocarpa*, and *C. hupehensis*. *C. multiflora* is a tall shrub with slender, wide-spreading, gracefully arching, bright chestnut brown stems and branches, dull pale gray leaves, white flowers half an inch in diameter borne along the whole length of the branches in compact clusters on short lateral twigs, and black fruits. *C. multiflora* is a widely distributed and common plant in southern Siberia and northern and western China, and has

been in cultivation for several years. The variety, which has larger fruits, was discovered by Wilson near Sungpan Ting in the Minn valley. *C. hupehensis* is perhaps even more beautiful as a flowering plant than *C. multiflora*, for although the white flowers are smaller they are less covered by the smaller leaves. It is a large, wide-spreading shrub with very slender arching stems and branches which are now so covered with flowers that from a distance it is hard to realize that it is a Cotoneaster and not a Spiraea. The fruit is bright red and very beautiful. *C. foveolata* is a large vigorous plant with stout arching stems from six to ten feet high, large, thin leaves, dark green and lustrous above, and pale below with prominent veins deeply impressed on the upper surface. The flowers are small, globose and red, in compact clusters, on stalks much shorter than the leaves by which they are a good deal hidden. The fruit is black and lustrous. The greatest beauty, perhaps, of this plant is in the autumn color of the leaves, for after the leaves of most American shrubs have fallen those of this Chinese Cotoneaster change to brilliant shades of orange and red. There are few more beautiful autumn plants in the Arboretum. Something like *C. foveolata* in the size and color of the flowers and in the shape of the smaller leaves is a variety of the north China *C. acutifolia* from the borders of Tibet (var. *villosula*) which is also in flower. This is a dwarfer and more compact shrub than *C. foveolata*, with black fruits, and bright autumn colors. Another set of these plants is distinguished by small dark green leaves, small red flowers and red fruit. The best known of these, *C. horizontalis*, has been in cultivation now for several years, and is not rare in European gardens. It is a low shrub with wide-spreading branchlets which when trained against a wall grow several feet tall but untrained, form a dense mat two or three feet high, and sometimes six or eight feet in diameter. In this climate the leaves remain on the branches without change of color until early winter, but in milder climates do not fall until the spring. The best specimen of this handsome plant in the Arboretum is on Hickory Path near Centre Street. *C. divaricata*, which is also in flower, is a larger plant with wide-spreading stems forming a rather open head, and bright red fruit. From this the related *C. nitens*, which is a smaller shrub, differs chiefly in its more compact habit and reddish black fruit. Distinct with prominent stems forming mats only a few inches high are *C. adpressa* and *C. microphylla*. These are useful little plants for the rock garden, and for the edging of garden walks. Several of the Chinese Cotoneasters are in the general Shrub Collection and on Hickory Path, but the best specimens are in the Chinese Shrub Collection on the southern slope of Bussey Hill where these plants have been growing for four years in an exceedingly exposed position and without protection.

FREIGHT SHIPMENTS

There is still considerable freight congestion along the Atlantic seaboard especially New York and New England points. Nurserymen will do well to watch their freight shipments very closely.

A LATE SPRING

The spring season is unusually late this year, nurseries report being fully two weeks behind in beginning their shipping on account of unseasonable weather, even in the far south, in Florida points the season is backward.

AMERICAN ASSOCIATION OF NURSERYMEN

President—E. S. Welch, Shenandoah, Iowa.
Vice-President—John Watson, Newark, N. Y.
Treasurer—Peter Youngers, Geneva, Neb.
Secretary—John Hall, Rochester, N. Y.
Executive Committee—President, E. S. Welch, Shenandoah, Iowa, Chairman; J. B. Pilkington, Portland, Oregon, one year; Lloyd C. Stark, Louisiana, Mo., one year; J. H. Dayton, Painesville, Ohio, two years; H. B. Chase, Chase, Ala., two years; J. R. Mayhew, Waxahackie, Texas, three years; Theo. Smith, Geneva, New York, three years; Vice-President, John Watson, Newark, N. Y., ex-officio.
Attorney for Association—Curtis Nye Smith, Boston, Mass.

Chairmen of Committees

Transportation—Chas. M. Sizemore, Louisiana, Mo.
Tariff—Irving Rouse, Rochester, N. Y.
Legislation East of Mississippi River—Wm. Pitkin, Rochester, N. Y.
Legislation West of Mississippi River—Peter Youngers, Geneva, Neb.
Co-Operation with Entomologists—L. A. Berckmans, Augusta, Ga.
Program—L. C. Stark, Louisiana, Mo.
Exhibits—Albert F. Meehan, Dresher, Pa.
Arrangements and Entertainment—T. J. Ferguson, Wauwatosa, Wis.
Publicity—J. R. Mayhew, Waxahackie, Texas; L. C. Stark, Louisiana, Mo.
Editing Report—John Hall, Secretary, Rochester, N. Y.
Root Knot—E. A. Smith, Lake City, Minn.
Membership—Will B. Munson, Chairman, Denison, Texas.
Finance—J. H. Dayton, Painesville, Ohio; T. J. Smith, Geneva, N. Y.; John Watson, Newark, N. Y.

STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irvine Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H. W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

Canadian Association of Nurserymen—President, E. D. Smith, Winona; secretary, C. C. R. Morden, Niagara Falls, Ont.

Connecticut Nurseryman's Association—President, Walter E. Campbell, New Haven, Conn.; secretary, F. L. Thomas, Manchester, Conn.

Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Litooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell, Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, E. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, E. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio; secretary, W. B. Cole, Painesville, Ohio.

Oregon—Washington Association of Nurserymen—President, C. F. Breilhaup, Richland, Wash.; secretary, C. A Tonneson Tacoma, Wash.

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Andorra, Philadelphia Secretary, Henry T. Moon, Morrisville, Penna.

Southern Nurserymen's Association—President, Milton Moss, Huntsville, Ala.; secretary-treasurer, A. I. Smith, Knoxville Tenn. Next meeting, Hendersonville, N. C.

Tennessee Nurserymen's Association—President, A. I. Smith, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Tennessee State Florists' Association—President, Karl P. Baum, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Deninson, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

AMERICAN ASSOCIATION OF NURSERYMEN

OFFICE OF COUNSEL, 19 CONGRESS ST., BOSTON, MASS.
March 28, 1916.

Editor National Nurseryman,
Flourtown, Pa.

Dear Sir:—

The importers of nursery stock are very much exercised by action of the British censor in retaining consular invoices of nursery stock shipped from the Netherlands. Such very long delays are made in sending on a consular invoice after retention by the British consul that these goods are liable to be destroyed and deliveries to the trade prevented. Thousands of cases of stock are piled up in New York and other ports of entry not receiving these consular invoices. The situation is very serious. A strong case has been presented to the Department of State at Washington, which has instructed the American Ambassador to secure relief.

It has been bruited about that the Federal Horticultural Board is to have a quarantine hearing on Azaleas, Rhododendrons, Bay Trees, Evergreens, and all balled plants from any source,—the hearing to take place in March or April. The reason assigned is that these balled plants may contain in the earth, or other packing, dangerous insect pests.

On the best authority, it is stated that no action has been taken by the Federal Horticultural Board, and is not now contemplated.

The Secretary of Agriculture, under date of February 29th, 1916, issued a quarantine against the introduction into the United States from the Dominion of Canada and Newfoundland of all five-leafed pines and all varieties of the Genera Ribes and Grossularia, known to be carriers of the white pine blister rust. This quarantine is amendment No. 1 to notice of quarantine No. 7.

Yours very truly,
CURTIS NYE SMITH.

BOOK REVIEW

STANDARD CYCLOPEDIA OF HORTICULTURE
By L. H. Bailey.

The fourth volume of this splendid work is being distributed. The more references that are made to this inimitable work, the more one is impressed by its magnitude, thoroughness and scope. Volume IV covers the letters L to O.

As an illustration of its thoroughness and scope, while it confines itself strictly to the gardening or horticultural phases of Landscape Gardening, as differing from the larger scope of Landscape Architecture, this section is treated by such well known authorities as

The art of designing landscapes (Manning)
The Japanese Garden (Tanimura, Verbeek)
Formal Gardens (Vitale)
The landscape treatment of small grounds (Cowell)
The landscape treatment of parks (Olmsted)
Landscape cemeteries (Simonds)
Horticultural phases of civic art (Waugh)
Landscape extension (Miller)
Lawns and Lawn-making in landscape planting (Parsons, Berckmanns)

It gives the latest information of theory and practice in the growing of all kinds of crops and by the very best authorities.

The satistics are very comprehensive, those referring to the Nursery Business give the acreage value and even to the number of apple trees grown.

The work is of such supreme importance to the nursery interests of the country that all nurserymen should at least investigate it. Send to "The Naional Nurseryman," Livingston Building, Rochester, N. Y., for prospectus. It is being published by the MacMillan Company, New York.

DON'T LET YOUR MEMBERSHIP LAPSE

To the Members of American Association of Nurserymen:

Your membership in the American Association to-day is one of your most valuable assets. *Do not let your membership lapse.* Under the new constitution adopted at Detroit convention every member in good standing in 1915 retains his membership provided he subscribes to the new constitution and pays his dues prior to the meeting of the convention at Milwaukee in June, 1916. Article VII of the new constitution reads as follows: "The annual membership fee for active members shall be $5.00 and for associate members $10.00. Additional dues shall be paid as follows: active members doing an annual business of from $10,000 to $20,000, $5; $20,000 to $50,000, $15; $50,000 to $100,000, $25; and $100,000 or over $50. The payment of dues based upon the above schedule *shall be made to the Secretary prior to the date of annual meeting.*"

The Executive Committee has directed the Secretary to mail blanks to every member of the Association, and it is earnestly hoped that no member will fail to respond. Your officers are endeavoring, by every known means, to promote the nursery interests of America, and it is believed that the report of your Executive Committee at Milwaukee will prove this fact. It has been in the Committee's mind to proceed along most economical lines during the first year of operation under the new constitution and yet we all realize the need of judicious expenditure of money in building a creditable organization such as is contemplated under new constitution.

Again may I say that it is earnestly hoped that every member of the A. A. N. will respond promptly to Secretary Hall's call for report, and that where it is possible every member will attend the Milwaukee Convention in June, with a determination to help make ours a better organization.

Let us plan now to attend the meeting at Milwaukee.

J. R. MAYHEW.

Bureau of Occupations for Trained Women,
1302 Spruce Street, Philadelphia.
February 25, 1916.

CONCERNING WOMEN GARDENERS AND FARMERS

To Owners of Estates, Nurserymen, Landscape Architects and Farmers

An increased interest by women, in all types of agricultural work, has led to the establishment of courses for women in gardening, landscape architecture, horticulture, floriculture, and other branches in the vocational schools and colleges throughout the country. Women of ability and education are entering these courses, and, equipped with the technical training, are now looking for practical opportunities in the work. Being a comparatively new line of activity for women they are experiencing some of the difficulties of all pioneers and are having to overcome prejudices in securing their first opportunities of demonstrating their ability. This letter is an appeal to individuals and firms employing landscape architects, gardeners and agricultural assistants, of various types, to give fair and thoughtful consideration to the applications made by women who are properly trained for the work.

The Bureau of Occupations for Trained Women, 1302 Spruce Street, Philadelphia, has among its registered applicants a number of women who are seeking positions along agricultural lines. Some are graduates of courses in landscape architecture, horticulture, floriculture, etc. Some have had practical farming experience, including poultry raising and dairying. References and records of the education, technical training and experience of all applicants are on file at this office.

There must be opportunities for efficient women farmers, gardeners and landscape architects. We should be glad to have such needs and opportunities referred to this Bureau.

JEANETTE KEIM,
Member of Executive Committee, Bureau of Occupations.

Indications are that labor will be scarce and high this spring; many nurseries in the East will have difficulty in getting enough men of the grade they want, to see them through the spring rush.

WANTED

Wanted.

A young man for agency, correspondence with a future. A fine opportunity. Address
LOCK BOX 76,
MONROE - - MICH.

WANTED

PARTNER—Capable man with some money to take interest in up-to-date nursery and florist business—32 acres 12,000 ft. glass. Doing good business. Address
J. J., Care of National Nurseryman.

NURSERY SUPERINTENDENT WANTED

Must have experience in propagating and growing fine stock and shipping, and general nursery training. Young man with family preferred.
Address "BOXFORD," Care The National Nurseryman,
Rochester, New York.

WANTED- A Foreman for Nursery. He must be a thoroughly practical Propagator, one who knows the Nursery business from A to Z and must have ability to handle men. We have a position for a man of this caliber. He must know his business. Salary is no object.
Address A. Z. Care NATIONAL NURSERYMAN.

Peach for Delivery, Fall '16 and Spring '17

We offer our surplus at close prices for early orders. Michigan Peach, carefully grown, perfectly graded.
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34x4 in.	16.70	4.35	37x5 in.	26.30	6.60

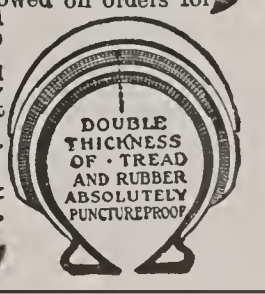
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The only Trade Journal devoted exclusively to the interests of growers and dealers in nursery stock.

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And a general line of ORNAMENTAL TREES and SHRUBS. All stock clean and thrifty, the best that can be grown.

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Apple, Standard and Dwarf Pear
Cherry, Plum, Roses & etc.
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Price Right, Stock in Storage, Prompt Shipments.

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A complete line of Nursery Stock. We can make Special prices on Peach trees, Apple trees, &c. We also have to offer a nice line of Norway Maples, Pin Oaks, Oriental Planes, &c. California Privet, Amoor River Privet, Norway Spruce, Peach Seed, Tenn. and N. C. Naturals.
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NATIONAL NURSERYMAN, ROCHESTER, N. Y.

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Advertising Space, $1 Per Inch Subscription, $1 Per Annum
Under this title we publish the most reliable, progressive and up-to-date trade paper in the country, with departments covering the **Nursery, Florist, Seed Trade and Allied Industries.** With a paid up subscription and distribution list of 9000 copies, nearly every copy of which is to men in business for themselves the worth of our columns will be readily appreciated. The editor of our Nursery Department is and has been for years, JOSEPH MEEHAN, of Philadelphia.
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Before placing your order for Spring 1916, get our prices on:—
APPLE, PLUM,
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Large assortment of above.

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CLEAN COAST GROWN SEEDLINGS
OREGON CHAMPION GOOSEBERRIES
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Write now.

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This New England soil and climate produce fine sturdy shrubs. Special trade prices. By the thousands, hardy Native and Hybrid Rhododendrons—transplanted and acclimated. Send your lists, let us est.

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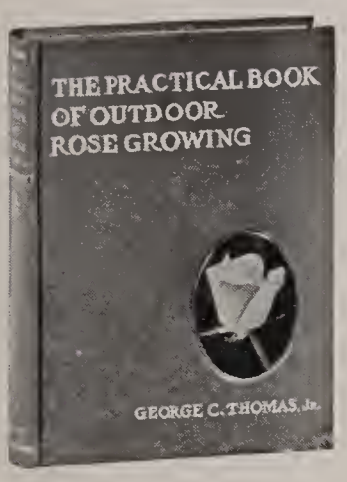
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By GEORGE C. THOMAS, Jr. with 96 plates in color and half-tone illustrations, large octavo. Cloth $4.00 net. Add parcels post or expressage.

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As a practical working manual for outdoor rose growing in America, this volume contains several features which make it exceptionally valuable:

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HARRISONS' Evergreens are the thrifty, well-filled-out kind with an abundance of fibrous roots. We dig them with big balls and properly burlap them; they will bring repeat orders from your customers. Note the select list below. Ask for prices and samples of any tree you are interested in.

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500	18 to 24 in.
10	2 to 3 ft.

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300	4 to 5 ft.
150	5 to 6 ft.
15	6 to 7 ft.

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200	2 to 3 ft.
100	3 to 4 ft.

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25	7 to 8 ft.
50	8 to 10 ft.
25	10 to 12 ft.
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50	5 to 6 ft.
50	6 to 7 ft.
50	7 to 8 ft.
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HEMLOCK, CANADIAN

500	2 to 3 ft.
100	3 to 4 ft.
100	4 to 5 ft.
50	5 to 6 ft.

RETINOSPORA, GOLDEN PLUME

50	3 to 4 ft.
50	4 to 5 ft.
100	5 to 6 ft.

SPRUCE, COLORADO BLUE

200	18 to 24 in.
500	2 to 3 ft.
400	3 to 4 ft.
100	4 to 5 ft.
5	7 to 8 ft.

SPRUCE, KOSTER BLUE

500	18 to 24 in.
500	2 to 3 ft.
200	3 to 4 ft.
200	4 to 5 ft.
50	5 to 6 ft.

SPRUCE, NORWAY

2,000	18 to 24 in.
3,000	2 to 3 ft.
2,000	3 to 4 ft.
2,000	4 to 5 ft.
200	5 to 6 ft.

SPRUCE, WHITE

50	2 to 3 ft.
50	3 to 4 ft.
50	4 to 5 ft.
30	5 to 6 ft.
10	6 to 7 ft.

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THE NATIONAL NURSERYMAN

MAY 1916

Published Monthly at Rochester, N. Y., U. S. A., in behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General

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Established 1847.

Offers a Fine Stock of

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Will be pleased to quote on your list of wants

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A Complete Line of High Quality Nursery Stock for

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APPLE TREES—Over 100 Varieties
CHERRY, PLUM, PEAR, PEACH
BLACKBERRIES—Large stock root cutting plants
GOOSEBERRIES, CURRANTS, RASPBERRIES,
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ROSES—Immense stock hardy kinds

PLANTING STOCK

APPLE GRAFTS, FRUIT TREE STOCKS,
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Ask for Spring Trade List and Bulletins
Always pleased to quote prices

IF YOU HAVEN'T RECEIVED
our Spring 1916 Trade List
Send for It.

SPECIALTIES FOR SPRING 1916:

Sapa on Native Plum Roots.
The leader of the Hansen Hybrids

Clematis Jack 2 yr. No. 1 Strong
Our own growing.
The best ever produced.

Rosa Rugosa 2-3 ft., 3-4 ft.
Native Roses. Climbers.
Sweet Brier.

American Linden or Basswood.
From northern seed.
1 in. to 3 in. caliper.

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LAKE CITY, MINNESOTA

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C. R. BURR & CO.,

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Extensive growers of FOREST, AVENUE, and ORNAMENTAL Trees and Shrubs, Evergreens, HARDY ROSES, Etc.

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SPECIALISTS IN BOXWOOD of all shapes, also TOPIARY clipped forms, MAGNOLIAS, hardy AZALEAS, RHODODENDRONS, Etc.

IMPORT ORDERS for FALL DELIVERY are booked now for BULBS from JAPAN, HOLLAND, FRANCE; BAY TREES from BELGIUM, Prime RAFFIA furnished in original bale lots; and other Nursery and Greenhouse Supplies

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Address for lists and further detail:

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For Spring 1916

300,000 APPLE, 2 & 3 year, splendid trees
75,000 CHERRY, 2 year, none better
200,000 CHERRY, 1 year, fine
40,000 PEAR, 1 & 2 year
40,000 PLUM, 1 & 2 year, fine

Also large stock of ELM, NORWAY, SUGAR, SOFT MAPLE, CATALPA BUNGII, and a general assortment of other ornamental trees, shrubs, hedge plants, perennials, small fruits, etc.

We can furnish ornamental trees in almost any size wanted.

A fine growing season, a fine lot of stock

C. M. Hobbs & Sons

Marion County, - - Bridgeport, Ind.

Now is the time to order
DIRECT IMPORTATIONS
From European Nursery Centers.

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Pear, Apple, Myrobolan, Mahaleb, Mazzard Manetti, Multiflora and Quince. Also a full line of Ornamentals for lining out. Best packing and grading. December and February shipments from **Vincent Lebretons Nurseries, Angers, France.**

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Boxwood (bushes, pyramids, standards, ball-shape, etc.) Roses, Tree Roses, Azaleas, Magnolias, Rhododendrons, Koster Blue Spruce, Evergreens, etc. Fall or Spring shipment from **Schaum & Von Tol, Boskoop, Holland.**

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Full list of varieties, also Aquatics, Rock Plants, etc.; low prices. Fall or Spring shipments from **Royal Tottenham Nurseries, Dedemsvaart, Holland.**

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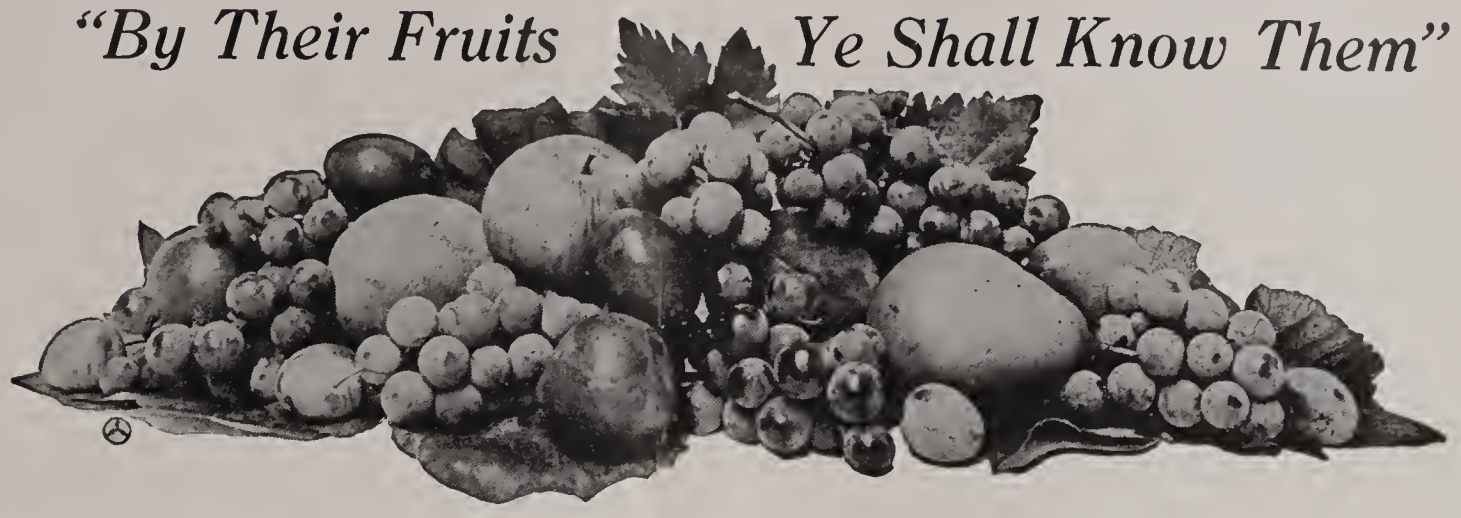
The Storrs & Harrison Co.

ESTABLISHED 1854

PAINESVILLE, OHIO.

1200 ACRES
45 GREENHOUSES

"By Their Fruits Ye Shall Know Them"



WESTERN UNION DAY LETTER

Painesville, Ohio
April 24, 1916

The National Nurseryman Publishing Co.
Rochester, New York

Dear Editors:

In the fierce crush caused by late Spring and labor shortage we overlooked changing advertisement. Please just tell our customers we are breaking our backs and suffering brain storms in the effort to complete deliveries. Frost embargo—car shortage——But why repeat woes? They are experiences!

Hastily yours

THE STORRS & HARRISON CO.

WORTH MANY DOLLARS

to buyers of nursery stock, is our current Bulletin of Unsold Stock, and yet it is free for the asking,—if you are in the trade. If you did not receive your copy write for it. Do it today. Use printed stationery, please. We sell to the trade only.

It offers a splendid assortment of

ROSES PERENNIALS SHRUBS

VINES ORNAMENTAL TREES

APPLES PEACHES PEARS

CURRANTS GOOSEBERRIES

All graded up to the well known "J. & P. Preferred" standard.

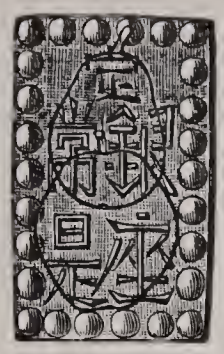
We ask especial attention to our offerings of ROSES from 2½ inch pots for nursery planting.

They are extra well-established stock that live, grow and make No. 1 field-grown plants in a surprisingly short time.

JACKSON & PERKINS CO.

Newark, - - New York.

Heikes—Huntsville—Trees



Huntsville Wholesale Nurseries

Huntsville, Ala.

MILTON MOSS, Prop.

We offer for Spring of 1916 in large quantities as usual:

Alabama's **C**hoice **P**roduct
t **o** **r**
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Apple
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belia Grandiflora

Cherry
ompass--Cherry--Plum

Peach
ear
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ecan seedlings
rivet

ROSES: Budded H. P's. One of our specialties. We grow them by the hundred thousands.

SUNDRY ORNAMENTALS

Send us your orders and inquiries

See Price List for Particulars.

HUNTSVILLE WHOLESALE NURSERIES

HUNTSVILLE, ALA.

Hill's Evergreens

You can work up a good profitable trade in Evergreens if you have the right kind of stock. Our main specialty for over half a century has been the propagation of young Evergreen stock for the wholesale trade in immense quantities at low prices.

We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S. A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

YOU want to keep posted on Evergreens;
WE want to become better acquainted with you;
Let's get together.

The D. HILL Nursery Co., Inc.

Evergreen Specialists

LARGEST GROWERS IN AMERICA.

Box 401 - Dundee, Ill.

"Anything from Anywhere"

Wholesaler — Jobber — Importer.

JOHN WATSON,

NEWARK, - NEW YORK

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F. DELAUNAY,
Angers, France.
Fruit-tree Seedlings, Rose Stocks, Young Ornamentals for lining-out.

S. SPOONER & SONS,
Hounslow, England.
Manetti Stocks, Gooseberries, Trained Fruit Trees.

VAN DILLEWYN & THIEL,
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Azaleas, Rhododendrons, Palms, Bay Trees, Exotic Plants and Forcing Stock.

SAKATA NURSERIES,
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Bulbs, Seeds, Dwarf Conifers, Tree Peonies, etc. Also well-known Holland and German growers. Quotations furnished on ANYTHING in quantity HOME-GROWN or IMPORTED An inquiry will cost a stamp and may save dollars, plus Quality and Service.

JOHN WATSON, Newark, N. Y.

April First.

FALL 1916

J. H. Skinner & Co.

Topeka, - Kansas

Apple Seedlings Pear Seedlings

Forest Tree Seedlings

Fruit Trees Small Fruits

Grapes

Rhubarb, Myatt's Linnaeus, Pure Stock

Shade Trees Flowering Shrubs

Catalpa Bungei

Bechtel's Double Flowering Crab

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T. S. HUBBARD CO.

FREDONIA, N. Y.

The longest established and best known growers of

Grape Vines

And the largest stock In the Unlted States



CURRANTS and GOOSEBERRIES

A fine stock of leading varieties. One and two years.

BLACKBERRIES

The largest and best stock of root-cutting plants in this country All the best varieties. Snyder In great quantity. Our blackberry plants are as well furnlshed wlth fibrous roots as our well-known grape vines.

WE OFFER THE FOLLOWING

FIRST-CLASS STOCK

At prices so low it must pay you to ask it

NORWAY MAPLES,

2½ to 6 in. Cal., in quantity

A few of most all varieties shade trees in sizes running 3 inch to 10 inch in cal.

CALIFORNIA PRIVET

Up to 15 ft. in height

KOSTER'S BLUE SPRUCE

Perfect Specimens, 4 to 15 ft.

A lot of evergreens in Norway Spruce, Pine and Arbor Vitae, not specimens but very suitable for grouping or screening, up to 11 feet high.

The finest lot of LOMBARDY POPLARS up to 30 feet ever offered to the trade.

LET US QUOTE YOU

Chas. Momm & Sons,

IRVINGTON, N. J.

67th Year *67th Year*

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To our Customers and Friends

We wish to notify the Public that we will continue in active business, prepared to fill all orders promptly and carefully with

High Grade Nursery Stock

For Spring we can offer very attractive prices on Peach, Apple, Kieffer Pear, Asparagus, Privet and a general line of Shade and Ornamental Trees; an extra fine lot of 1 year Planes, Silver Maples and Privet for transplanting.

Send us your WANT LIST and do not place your orders without getting our prices.

Franklin Davis Nursery Co.

Wm. F. Stone, Trustee

BALTIMORE, MD.

Shrubs.

The growing season with us this year has been wonderful. Plenty of rain and heat, and this, with the necessary cultivation, has produced for us an exceptionally fine lot of shrubs. We offer in large quantities:—

Spiraea Anthony Waterer	Highbush Cranberry
Persian Lilac	Snowball, Common & Jap.
Spiraea Van Houttei	Mock Orange
Kerria, double	Bush Honeysuckle

Also many other trees and shrubs

Japanese Maples.

We call special attention to our Japanese Maples. We have them in a fine assortment of varieties and sizes. Some extra fine, large specimens.

Send for Our Wholesale Trade List

Thomas Meehan & Sons,
Wholesale Nurserymen,
Dresher, Penna.

We Are Prepared To Supply The Trade.

ROSES, FIELD-GROWN. Own roots and budded.
ABELIA GRANDIFLORA. Transplanted, field-grown.
BERBERIS JAPONICA.
AZALEA INDICA. (Home-grown).
GARDENIAS.
ENGLISH LAUREL.
MAGNOLIA GRANDIFLORA.
MAGNOLIA FUSCATA.
OLEA FRAGRANS.
CAMPHOR. (Pot-grown).
LIGUSTRUM JAPONICUM.
LUCIDUM, NEPALENSE, and other good varieties, fine bushy plants.
SATSUMA ORANGE. Field-grown, budded on Citrus Trifoliata.
BIOTA AUREA NANA. (Berckmans' Golden Arborvitae)
BIOTA AUREA CONSPICUA.
RETINOSPORA. In variety.
JUNIPERUS. In variety.
WISTARIAS. Grafted, best sorts.
APPLES.
JAPANESE PERSIMMONS.
ENGLISH WALNUTS.
MULBERRIES.
SPIRAEA THUNBERGII. A beautiful lot of stocky plants.

A fine stock of Hackberries, Koelreuteria, Tulip Poplar, Magnolia Purpurea, Texas Umbrella, Double-flowering Peaches, Sycamore and Elms.

Send us a list of your wants and let us give you quotations.

P. J. BERCKMANS CO., Incorporated
FRUITLAND NURSERIES AUGUSTA, GEORGIA

SPECIAL NOTICE

APPLE QUINCE PEAR CHERRY
PEACH PLUM

A Fine Block of
Own Root Roses

ORNAMENTAL TREES SHRUBS
BERRIES CLEMATIS
EVERGREENS PEONIES PHLOX
PYRAMIDAL and STANDARD
TREE BOX, 3 to 6 feet

Write for our Special Prices

SPECIAL ATTENTION given to Dealers, complete lists and carload lots.

W. & T. SMITH COMPANY

GENEVA, N. Y.

63 Years 700 Acres

SEEDLING EVERGREENS

BY THE MILLIONS

Arbor Vitae	Jack Pine
Austrian Pine	Norway Spruce
Black Hill Spruce	Pinus Ponderosa
Colo. Blue Spruce	Pitch Pine
Concolor	Red Spruce
Douglas Spruce	Scotch Pine
Engelmanii Spruce	White Pine
European Larch	White Spruce

All sizes. Ask for prices.

SPECIAL QUOTATIONS ON LARGE ORDERS

Also the following **APPLES** in 1-2 in., 5-8 in. and 11-16 in. sizes at special prices:

Ben Davis, Duchess, Florence, Gano, Hibernal, Iowa Beauty, N. W. Greening, Okabena, Patten's Greening, Peerless, Peter, Pewaukee, Scott's Winter, Soulard, Strawberry Crab, Transcendent, University, Virginia, Wealthy, Whitney and Wolf River.

SHERMAN NURSERY COMPANY

CHARLES CITY, IOWA

The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

Stark Bros. Nursery & Orchards Co.
LOUISIANA, MO.



P. D. Berry, Wholesale Nurseryman, is offering for Spring 1916

In Storage, can ship any time

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, California Privets, Barberry THUNBERGII, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

Quotations furnished by letter.

P. D. BERRY,

Dayton, - Ohio

THE BEST IN NURSERY PRODUCTS

We carry a full line of fruit and ornamental trees, evergreens, shrubs, etc. Send us your list of wants.

Listed below are some real winners. If what you need is not here, write for our trade list.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Magnolia Tripetela, Japan and American Judas, English Walnuts, Japan Walnuts, California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Apples and Peaches, 10,000 Downing Gooseberries, 2 years, No. 1.

HOOPES, BRO. & THOMAS COMPANY
Established 1853 West Chester, Pa.
Maple Avenue Nurseries
Philadelphia Office:
222-3-4-5 Stephen Girard Building 21 South Twelfth Street

Cherry Trees

We offer for sale our usual supply of strictly first-class one year and two year

Cherries

Mahaleb or Mazzard roots

Can furnish some extra heavy trees for landscape work.

We also offer Kansas grown Mahaleb

Send us a list of your wants.

H. M. Simpson & Sons
Vincennes, Indiana

We keep on hand large supply of Nature, Fruit, Flower, and Shrub

PLATES

We design covers for nursery catalogues and also print inserts in natural colors.

Christy Engraving Co.

183 St. Paul St., - Rochester, N. Y.

We are now ready to quote lowest prices on
FRUIT, SHADE AND ORNAMENTAL TREES, SHRUBS, EVERGREENS, VINES and HERBACEOUS PLANTS

FOREST TREE SEEDLINGS we only have in limited supply this season, and would advise placing your orders early.

TREE SEEDS we can supply in limited quantities. Send list of your requirements for lowest prices. Trade list ready.

The Willadean Nurseries

Sparta, Ky.

Vincennes Nurseries, W. C. REED, Prop.

VINCENNES, - - INDIANA

Leading Specialties for Fall 1916

Cherry, Two Year, extra fine, leading varieties in car lots

Cherry, one year, 11-16 up and smaller grades

Our Blocks of Cherry are perhaps the largest in the country

Std. & Dwf. Pear, Japan Plum, Compass Cherry

Peach, One Year, Car lots or less

Weeping Mulberry and Bungei Catalpa

Hardy Budded Pecans and English Walnuts

WE OFFER

Grape Vines, Currants and Gooseberries

in all varieties and grades

—also—

Grape and Currant Cuttings and Light Grade of Vines for Lining Out in Nursery Rows

WRITE FOR PRICES

F. E. SCHIFFERLI, Fredonia, N. Y.

PEACH FOR DELIVERY

Fall 1916 and Spring 1917

We offer our surplus at close prices for early orders. MICHIGAN PEACH, carefully grown, perfectly graded.

THE MICHIGAN NURSERY COMPANY

Winkworth and Sons,

Monroe - - Michigan

The Westminster Nursery

Westminster, Md. J. E. Stoner, Prop.

We are offering for Spring 1916, Peach and Apple Trees, California Privet, Asparagus 1 and 2 year, Downing Gooseberry and Snyder B. B. plants, Berberry Thunbergii in grades.

Can supply the above in car load lots or less. We also have a large surplus of Hydrangeas P. G., Spireas and Deutzias assorted, Evergreens, N. Maple, Horse Chestnuts and Carolina Poplar. Please submit list of wants for prices.

We offer

North Carolina Natural Peach Seeds

For **FUMIGATION** With

HYDROCYANIC ACID GAS

"CYANEGG"

Sodium Cyanide in egg shape, each egg weighs as near one ounce as possible. Destroys scale insects on Fruit Trees, Nursery Stock, Plants under glass and in Greenhouses.

Manufactured in U. S. A. by

The Roessler & Hasslacher Chemical Co.

100 WILLIAM ST. - NEW YORK, N. Y.

WOOD LABELS

For Nurserymen and Florists

The kind that give satisfaction.

Facilities for the handling of your requisite, combined with the quality of our product is unsurpassed.

Samples and prices are at the command of a communication from you.

Dayton Fruit Tree Label Co.

South Canal St., Dayton, Ohio



Season very late.

Strawberry plants will be in good condition for shipping first two weeks in May. All orders filled the day received, or day following.

We Are Headquarters for Everything That is Best in STRAWBERRIES.

Let us hear from you.

Our Strawberry Plants

as fine as ever grew. We have them on our own grounds: (fresh new land). Plants strong, vigorous, and healthy with an abundance of fibrous roots. And every plant guaranteed true to name. No better anywhere, at any price. And *our plants are hardy everywhere,* where strawberries are grown.

No order too big for us to handle with ease. Small orders receive the same careful attention, that we give the larger ones.

100,000	Abington	50,000	Ewell's Early	100,000	Lady Thompson	1,500,000	Rewastico
200,000	Amanda	100,000	Fendall	100,000	Lea	1,000,000	Sample
200,000	Aroma	50,000	First Quality	150,000	Longfellow	50,000	Saunders
200,000	Brandywine	500,000	Gandy	500,000	McAlpin	1,500,000	Senator Dunlap
300,000	Bubach	1,000,000	Glen Mary	100,000	Marshall	150,000	Sharpless
1,000,000	Big Joe	50,000	Gold Dollar	50,000	Mascot	100,000	Somerset
2,000,000	Chesapeake	100,000	Grand Marie	800,000	Missionary	100,000	Superb
100,000	Climax	400,000	Haverland	100,000	Mitchell's Early	200,000	Tenn Prolific
500,000	Early Ozark	50,000	Heritage	100,000	New York	100,000	Three W's
50,000	Early Jersey Giant	100,000	Hustler	100,000	Ohio Boy	200,000	Twilley
50,000	Edmund Wilson	100,000	Kellogg's Prize	100,000	Orem	1,000,000	Warfield
100,000	Ekey	1,000,000	Klondyke	200,000	Parson's Beauty	25,000	Wilson
50,000	Excelsior	100,000	Lady Corneille	100,000	Paul Jones	200,000	Winner
				200,000	Progressive	500,000	Wm. Belt

Send US Your List

The W. F. ALLEN CO.

100 Market Street

Salisbury, - - Maryland

All plants tied 25 to the bunch and every bunch labeled.

APPLE SEEDLINGS

We are now prepared to accept orders for Apple stocks for next Fall's delivery. As in former seasons we will book a portion of our crop early at special low prices.

Our grades are all the very highest. Our stocks will be clean and thrifty, as seed is all planted upon new strong land.

We are growing a nice lot of Japan Pear stocks and will quote prices on any grade.

If you have not been using our seedlings we will be pleased to refer you to parties in your vicinity who have.

F. W. WATSON & CO.,

TOPEKA, KANSAS

Apple and Pear Seedling Specialists.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK
The National Nurseryman Publishing Co., Incorporated

Vol. XXIV. ROCHESTER, N. Y., MAY, 1916. No. 5

THE COMING CONVENTION

NOW that the spring rush is beginning to subside, the nurseryman will have a little time to make plans for what he is going to do in the summer. Be sure and give the Convention first consideration.

Article 2 of the new Constitution adopted at Detroit last year states that the object of the American Association of Nurserymen shall be to promote the general interests of its members: First, by relaxation from business. Second, the cultivation of personal acquaintance with others engaged in the trade. Third, the exhibition of fruits, flowers, plants, or manufactured articles used in the business. Fourth, the exchange and sale of stock. Fifth, to promote, by all means in its power, increased knowledge and use of nursery products among the people.

This is certainly a comprehensive provision and should strongly appeal to members, and especially to those nurserymen who have held aloft from membership in the Association although enjoying its benefits.

The Forty-First Annual Convention

will be held June 28th, 29th and 30th, in Milwaukee, Wisconsin. Many of our members visited that city in 1908, at a former meeting of the Association. It is a city of wide streets and commanding views, while in its residence part it is remarkable for its fine shade trees and spacious lawns.

Convention Headquarters

Hotel Wisconsin is a comparatively new hostelry. It is a twelve-story, steel-frame building of modern fireproof construction throughout. There are 500 rooms, 300 of which have private baths. All rooms have windows opening to outside air.

Rooms for one person, detached bath, $1.00 and up.
Rooms for one person, shower bath, 2.00 "
Rooms for one person, with bath, 2.50 "
Rooms for two persons, with bath, 4.00 to $6.00

European plan. Table d'hote meals from 35 cents upward; also lunch room at Cafeteria prices.

The management has granted the use of the Gold Room for convention purposes, besides other accommodations.

When engaging rooms in advance, which is recommended, members should mention the Association.

Membership

The conditions of membership will be promptly forwarded upon application to John Hall, Secretary.

The full Constitution was published in the Annual Proceedings for 1915. The value of membership is also emphasized and made very clear in the same publication, page 112, under heading "Elaboration of New Constitution and By-Laws," written by Mr. J. R. Mayhew.

In our January issue we published an article "Why I Should Retain my Membership in American Association of Nurserymen," by the same author, which should stimulate to loyalty, activity and appreciation the most lukewarm member of the organization. "Be a Booster:" its a pleasant vocation and pays large dividends in satisfaction.

It is unnecessary for us to enlarge upon the advantages of membership further than to impress upon all the importance of observance of the suggestions following:
to impress upon all the importance of observance of the suggestions following:

Renew your Membership NOW.
Study the Application Blank.
Note the instructions regarding Remittances,
and
Heed all other requests.

The Program

The make-up of this all-important document was placed in the hands of Mr. Lloyd C. Stark, whose experience and large acquaintance furnish a guarantee of a program of quality, one which will commend itself to those familiar with the thoroughness which characterizes Mr. Stark's undertakings.

As usual, the full program will appear in the Badge Book. "Business First" will be the slogan.

The Badge Book

should claim the patronage of every member. Of course, your name, badge number and business address (two lines in all) are included in the publication free of charge. All old members know its value. Members only are privileged to advertise in the Badge Book: the cost of doing so is trivial.

Do not say, "copy will follow." It is much better to send copy with membership fee and do both as quickly as possible. No prices may be quoted in advertisements. Book to be mailed about June 1st.

Entertainment

Mr. T. J. Ferguson has had charge of all arrangements

and what entertainment there will be. There has been a sentiment against spending so much time for this latter feature to the detriment of business. Doubtless, however, provision will be made for a visit to the parks, seven in number, aggregating 456 acres, and located on the lake shore, the Milwaukee river, and portions of the suburbs. There are many places of interest in Milwaukee, too many for enumeration here.

One enjoyable feature is promised. The Convention Bureau connected with the Merchants' and Manufacturers' Association has arranged to give members and their guests an automobile ride covering all the good roads within Milwaukee county.

Railroad Rates

Since the passenger associations now require a guarantee in number of certificates much larger than we can furnish, members are advised to confer with their local ticket agent immediately after June first for information regarding round trip and excursion tickets.

Where there are members living along or near to a main railroad, it is suggested that some enthusiastic member make an endeavor to organize a "special car" party. There's lots of fun in it, and oftentimes business profit for all concerned.

Exhibits

The space assigned for this popular feature of the convention is more than ample. Intending exhibitors, embracing nurserymen, lithographers, manufacturers of tools, implements or anything else used by the trade, should lose no time in communicating with Mr. Albert F. Meehan, Dresher, Pa., Chairman of Exhibit Committee.

In harmony with the constitutional provision a charge of five cents per square foot for exhibit space will be made, with a minimum of fifty cents for each exhibitor. This is done to enable the committee to meet expenses connected with their work without drawing upon Association funds.

For further information, write

John Hall, *Secretary,*
Rochester, N. Y.

204 Granite Building
Renew at once!

What is the Matter with the Nursery Business?

By C. W. J. Ottolander, F. & F. Nurseries, Springfield, N. J.

I want to make it clear, whatever I say in the following lines is my personal opinion and does not represent in any way, views, held by any one of the company with which I am connected. It is also understood that in expressing my views I do this as a general review of the present conditions, and feel that all nurserymen are guilty in more or less degree. I am not presenting anything new, this subject has been brought up before, but the present situation calls for action. I am sorry that I don't feel competent to suggest the line of action that should be taken, but suggestions can be sent to the editor of the National Nurseryman and perhaps will result in a remedy.

After looking over the various price lists, and more so after going over the various surplus lists and bulletins sent out by nurserymen this spring, I have been strongly impressed by the fact, there is something wrong with the nursery business.

Thanks to the efforts of different organizations in the last few years, there has been a constant rise in the prices of ornamental nursery stock, all over the country. But of what the nurserymen in general are possessed this spring, seems rather hysterical. Some one has shouted the word surplus, and down go the prices. Whether we look east or west, south or north, there is a tendency of fateful price cutting which will have nothing but misery in store for the nurseryman.

Everywhere we look, in other fields, we see prices go up, soar beyond unprecedented heights. Compare prices of what used to be paid for clothing, for groceries, for all materials necessary for our living, and we don't see a single item that has not increased in price.

Labor is scarce and high, land values are high, duties and ocean freights are high, and yet prices of nursery stock are going down. What is going to be the end of this? Financial ruin unless the nurserymen get together and co-operate to maintain a living standard. It may seem exaggerated, but it is without question a consequence of the situation as it confronts us, and measures will have to be taken to prevent disaster.

Below, I give a list of prices on some of the leading items of nursery stock, taken from the price lists and surplus lists of a number of the leading nurseries in the country, concerns fully reliable in every respect to whom no one should hesitate to send an order for whatever he might want, and if you look carefully over this list I leave it to any one to draw his conclusions. Would any one of the leading industries in this country tolerate such a confusion of prices, such a wide variation? It is about time that there is more uniformity, and that a standard price be established for a standard article.

Norway maples	1.00	2.00	1.75	1.25	1.65	1.00		
Silver "	.60	1.00	1.00	.70	.75	.75	.60	
Sugar "	.90	2.00	1.15	1.50	1.15	1.00	1.25	
Betula papyr.	.20	.20	.40	.25	.35	.25	.30	.30
Platanus or.	.75	1.40	1.15	1.10	1.50	1.00	1.50	1.75
Populus fast.	.60	.40	.70	.40	1.25			
" monol.	.40	.75	.45	.80	.80			
Salix babyl.	.20	.40	.25	.20	.75	.35	.15	.18
Tilia platyph.	1.25	1.00	1.75	.90	.85			
Ulmus americ.	.90	1.65	.90	.75	1.25	.70	.80	

The surplus lists of this spring are a laughing stock to a well organized industry, and any one who is more or less acquainted with the bidding on lists for municipalities, or park systems and such organizations, would find conditions still worse. There seems to be no limit to which the competing nurserymen will go in cutting prices in order to capture that kind of business. And

worse yet are some of the brokers in our line, people who seem to be able to pick up various items, for almost a song, and bring them in competition with the nurserymen's own stock and cut them out of a living profit. The Association of Nurserymen, and kindred organizations should get together, and put an end to this sorry spectacle. It is to be hoped that a number of our craft can get together and muster enough brains to follow the example of the Standard Oil Company, or other concerns (may be we can hire the services of one of their leaders) and have a standard of prices established which will secure for all of us a reasonable profit, without coming in contact with the "restraint of trade bugaboo."

Of course, I realize it is much easier to talk and criticise than to undertake the re-adjustment of these things, and there has been plenty of talk about it and efforts have been made to bring home to nurserymen the necessity of securing a good price for their products. The trouble is, it seems impossible to make nurserymen stick together, there is lots of good will, and intentions, especially when they are enjoying themselves after a hard spring campaign by meeting in some big city and having their Conventions, but as soon as they come home and the "real thing" of competition is before the minds again, most of them get "cold feet" and do just the opposite of what they intended to do. That is because any one nurseryman, unless supported by the majority of those in the trade, cannot hold up his end of what Convention Resolutions, etc., would like him to do, without further organization.

The fruit growers in various parts of our country, the vegetable growers, even the farmers are organizing and have to do so, in order not only to lessen the killing competition, but to give better service and to establish uniformity in their dealings.

Can't we take a leaf from their books? Can we not get in touch with such organizations, and through the American Association of Nurserymen establish a co-operative or other selling and planting Bureau, that will take care not only of the selling end of the members, but also of the planting end?

If we could have records of what there is being planted all over the country, as well in ornamental stock as fruit stock, have records of what there is on hand and coming into the market, would the money invested by the nurserymen by creating such a salaried body of men, who can take care of this for them and advise them accordingly, would not such money be well invested?

It would prevent over-planting of a great many varieties, consequent slumps in prices.

Such a body could bring together those who want to buy and those who want to sell, and perhaps establish a basis, a certain price on which such items could be exchanged within the organization, which price can be put lower than what the outsider can buy for. This will tend to bring more members into the organization, and make it real universal, and make closer co-operation possible. If there was to be any surplus, this can be better disposed of, and no one nurseryman needs to worry much about it, he will receive a decent price for his goods and feel more inclined to burn surplus in consequence.

Another feature of such a Bureau would be the buying of all materials on co-operative basis. Any one needing imported nursery stock could apply for information which the Bureau can gather during the year, or else send in their list of wants and have the Bureau inquire for prices from the various responsible foreign houses, submit these to the respective buyers who again can place their orders directly with whomever they like, or else through the Purchasing Department. This would tend to cheapen prices as quantities of certain articles to be bought could be combined and undoubtedly be bought for a lower price, they could be imported under one invoice and expenses can be lowered. Shipments to the West coming over together can be sent in carload lots, special rates secured on large shipments, etc., etc.

Other materials, it does not matter what, can be bought on the same basis and cost of production decreased.

The distribution of nursery stock, and the establishment of a price to the outsider would be a more difficult problem to attack, and it will require bigger brains than I have at my disposal to establish a workable basis, especially on account of the variety of prices and the variety of selling area to be considered. It seems, however, that certain zones could be established, depending upon local conditions which would govern such zone-operations.

By establishing a zone say, in New England States, or in some of the Western States, the interested nurserymen of such a zone could come together and come to an agreement on selling, wholesale and retail, which would eliminate price cutting, and that would cause the individual firms to specialize in production of quality and effieient service in order to secure the business. Business which nurserymen in certain zones could secure outside this territory would have to be turned over to brother nurserymen established there, with perhaps a commission allowed for this service by the recipient of this favor. Or else inquiries of importance can be turned over to the Central Bureau, who in turn can communicate with the nurserymen located in the Zone from which this inquiry emanates, and make an offer accordingly, or from the information and data which they have been able to gather during the season, and afterwards place the orders where possible. This latter arrangement, however, carries with it a great many defects, which perhaps some one else may be able to eliminate. The questions in my mind are, would it be possible to organize the nurserymen into one body, on the pattern of the organization of the Federal Government of the United States, leaving a certain amount of self government to the Zones, or Localities, these in turn to be responsible to a central body of men, who are elected by the nurserymen of the country and decide the general policy of the Association. In my mind the present Association could be shaped into such an organization, and bring prosperity to the individual nurserymen all over the States. These few suggestions I feel are full of faults, but I hope they will lead to a more thorough consideration of this topic and perhaps eventually bring into existence the so necessary organization, and co-operation. Criticise these lines as much as you like, nothing but good can come from it.

Efficiency in the Nursery, Planting the Stock

By William Flemmer, Jr., Manager Princeton Nurseries, Kingston, N. J.

EFFICIENCY and system are the slogans of the business world today. They can and are being successfully applied to the nursery trade. Those having the greatest efficiency and best systems are the ones that are making the greatest progress. By best systems we do not mean the most complicated, far from it. In our estimation the best system is the one that will give all the necessary results with the least amount of labor. You might think the following method of systematized planting includes too much clerical work and that the old way is good enough. This is not the case, however, for in order to obtain the best results it is necessary to devote a reasonable amount of time and energy to the task.

How many ornamental nurseries are there that have and keep only good thrifty stock? Few indeed are there that have not a part or portion of their ground covered with old overgrown stock, of no use except for the brush pile. It has been said that, "The brush pile is the most profitable part of the business," this might be just a little far stretched, but the brush pile is the most effective means of making profit on ground that has been lying in neglect and disuse by overgrown stock.

To begin, let us compare the appearance of the average fruit nursery with the average ornamental nursery. In the former we usually find a total absence of overgrown stock, while in the latter many fields are seen with a row or two, of the evil; cutting up the field and making the best harbor for insect pests and diseases. Why the difference? It is simply because after a certain period the fruit tree becomes worthless, and while the ornamentals do also, there might have been call for such stock in the past and the unwise grower keeps the stock hoping there might be someone foolhardy enough to accept it in the future. But the odds are too great and even if sold the stock is ill-shaped, thin and to use the phrase of an old darky, "Just no account trash."

When a shrub is beyond a certain age and size it is worthless, unless of a particularly slow growing sort. If specimens are your desire, transplant and give room but don't let them stay in the original row, growing as best they can.

Now to the solution you have heard enough to warrant a remedy. Perhaps you have already given this matter much thought and have methods that answer your purpose, still the method as here explained may offer some new idea or suggestion. The first step is to mark the planting list as to years of maturity. In other words, you should know from experience the approximate period required for the different items to reach a saleable size, and just about how long each should remain saleable. Take the planting list and mark accordingly.

For example we have found from experience that some of the stronger varieties of Viburnums such as plicatum produce plants of a commercial grade in two years. Cassanoides usually requires three years, Acerifolium at least four years and some even longer. Now when the Spring planting list is classified, instead of arranging all of these together we separate and plant the varieties reaching maturity at the same age in one block. We thereby avoid leaving any of the kinds after the rest of the block is dug, or digging when of too small a size.

After so marking the list is re-copied, arranging the evergreens, trees, shrubs, and vines respectively. It might be added that in the trees the tall, medium and smaller varieties of the same maturity age should be grouped accordingly, thereby affording the best development for all.

The last step is to key or mark the list, which shows the planter the distance required for each item and source. This is one of the most important functions and repays many fold the labor expended. How difficult it is to have the stock given the correct distance when duties at office or packing department require your attention.

1000 Viburnum plicatum "O" 2. G. H.

This illustrates how an item completely classified would appear on the finished list. "O" designates the distance, which in this case is three feet six inches between the rows and eight inches in the row. The time required in years is shown by 2, and the source is green house (rooted cuttings).

Now when the foreman starts planting he has all the necessary information in a nutshell, and there is absolutely no excuse for haphazard planting. In this way the list can be prepared in the dull winter season and you can rest assured that the stock will be planted just as you desire and without personal supervision. There might be a few minor changes to make but on the whole it will remain the same.

These are the fundamental principals, but we go one step further and have all our lining out stock healed in bins according to time of maturity. This is just as easy to do and simplifies the planting. These rules apply to trees as well as shrubs, in fact it is in trees that we see the greatest variation inasmuch as they require a longer time to mature.

Of course there are exceptions and the rare or slow growing sorts might be classified as such. It might be added that small seedlings and pot evergreens thrive best when planted in beds, the rows twelve to eighteen inches apart and five to ten inches in the row, according to size and variety. After remaining for two or three years they can be safely transplanted into nursery rows. Evergreens should be transplanted at least every two to three years to insure good roots and reasonable success in transplanting.

If by reason of extraordinary growth or early sale a strip is cleared in a block, scheduled to be cleared the coming season; plant something that need stand but one season, such as yearling cuttings etc. Should this be unpractical it is good business to sow cover crops which prevent soil erosion, avoid cultivating and add greatly to the soil fertility.

Systems like ourselves are not perfect. Some attain that state more nearly than others, and it is simply because they are more efficient and managed to better advantage.

THE RIGHT MAN IN THE RIGHT PLACE

HON. Orlando Harrison, of the Harrison Nursery Company, Berlin, Md., presented a bill before the Maryland Legislature providing standards for the grading, packing, marking, shipping and marketing of apples packed in barrels or closed packages, which has been unanimously passed by both houses and signed by the Governor.

Senator Harrison has been a power in his own state in developing agricultural and horticultural interests, and has splendid and hearty co-operation of all the senators and representatives in assisting him in getting the money appropriations for the support of the Maryland Agricultural College and its kindred interests.

A notable achievement was the passage of the Bill appropriating money for the maintenance of the Maryland Agricultural College, $30,000 for 1917 and $40,000 for 1918. The College has never before received more than $16,000 per annum for maintenance and has been hampered in giving efficient service on account of the lack of funds.

No man in the State of Maryland has shown more loyalty toward the school and road interest for the state, than Senator Harrison. He has accomplished wonders during the present session.

BE IT ENACTED BY THE SENATE AND HOUSE OF DELEGATES OF THE STATE OF MARYLAND, IN GENERAL ASSEMBLY MET:

Section 1. That the standard grades or classes for apples grown in this state, when packed in closed packages, shall be as follows:

(a) "Maryland standard fancy grade" shall consist of apples of one variety, which are well grown specimens, hand-picked, properly packed, of good color for the variety, normal shape, free from dirt, diseases, insect and fungus injury, bruises and other defects except such as are necessarily caused in the operation of packing; or apples of one variety which are not more than five per centum below the foregoing specifications on a combination of all defects or two per centum on any single defect.

(b) "Maryland standard A grade" shall consist of apples of one variety which are well grown specimens, hand-picked properly packed, normal shape, practically free from dirt, diseases, insect and fungus injury, bruises and other defects except such as are necessarily caused in the operation of packing; or apples of one variety which are not more than ten per centum below the foregoing specifications on a combination of all defects or five per centum on any single defect. No apples in this grade shall show less than thirty-three and one-third per centum of good color for the variety.

(c) "Maryland standard B grade" shall consist of apples of one variety which are well matured, hand-picked, properly packed, practically normal shape, practically free from dirt, disease, insect and fungus injury; or apples of one variety which are not more than fifteen per centum below the foregoing specifications on a combination of all defects or five per centum on any single defect.

(d) "Cull grade" shall consist of apples not conforming to the foregoing specifications of grade, and shall be classed as culls and shall be so branded. This grade shall be used to include those apples rejected as not meeting the specifications of the foregoing "Fancy," "A," and "B" grades. The minimum size of the fruit and the grade of the fruit in the package shall be branded upon it as hereinafter specified and in addition to the other marks hereinafter required.

(e) "Orchard run" class shall consist of all apples grown in the orchard irrespective of grade or quality. It shall be unlawful for any person to cull or sort from a lot of apples any of the larger sizes or better grades or qualities thereof, and then pack, brand, sell or ship the remaining fruit as "Orchard run." The minimum size of the fruit and the class of the fruit in the package shall also be branded upon it as hereinafter specified and in addition to the other marks hereinafter specified.

Section 2. The marks indicating grade as above prescribed may be accompanied by any other designation of grade or brand if that designation of grade or brand is not inconsistent with or marked more conspicuously than the one of the said five marks which is used on the said package. Apples packed and branded in accordance with the United States law approved August third, nineteen hundred and twelve, shall be exempt from the provisions of this act.

Section 3. (a) The minimum size of the fruit in all classes or grades shall be determined by taking the transverse diameter of the smallest fruit in the package at right angles to the stem and blossom end. Minimum sizes shall be stated in variations of one-quarter of an inch, like two inches, two and one-quarter inches, two and one-half inches, two and three-quarter inches, three inches, three and one-quarter inches, and so on, in accordance with the facts.

(b) Minimum sizes may be designated by figures instead of words. The word "minimum" may be designated by using the abbreviation "min."

(c) A tolerance or variation of five per centum on size shall be allowed in all classes, but such five per centum shall not be in addition to the variations or tolerances for defects provided in grades "Fancy," "A," and "B."

Section 4. (a) Every closed package containing apples grown in the State of Maryland which is sold, offered or exposed for sale, or packed for sale, or transported for sale by any person shall bear upon the outside of one end in plain letters and figures the name and address of the packer or the person by whose authority the apples were packed and the package marked, the true name of the variety, the grade or class of the apples therein contained and the minimum size of the fruit in the packages. If the true name of the variety shall not be known to the packer or the person by whose authority the package is packed or branded, then such variety shall be designated as "variety unknown." Every package

of apples which is repacked shall bear the name and address of the repacker or the name of the person by whose authority it is repacked in place of that of the original packer.

(b) The brands or marks as prescribed by this act shall be in block letters and figures of size of not less than thirty-six point Gothic.

(c) It shall be unlawful for any person within the State to sell, offer or expose for sale, or pack for sale, or transport for sale apples which are adulterated or misbranded within the meaning of this act.

Section 5. For the purposes of this act apples packed in a closed package shall be deemed to be misbranded:

(a) If the package shall fail to bear the statements required by this act;

(b) If the package shall be falsely branded or shall bear any statement, design or device regarding such apples which is false or misleading, or if the package bears any statement, design, or device indicating that the apples contained therein are a given Maryland "standard grade," or "cull grade," or "orchard run class," and said apples when packed or repacked do not conform to the requirements of such grade.

Section 6. For the purposes of this act apples packed in closed packages shall be deemed to be adulterated if their quality or grade when packed or repacked does not conform to the marks upon the package.

Section 7. It shall be unlawful for any person, unless he regrades and repacks the apples, to erase the original size, grade or variety of apples branded upon the package and in its place substitute a size, grade or variety-name different from the one marked upon the barrel by the packer of the apples.

Section 8. No person shall pack, or shall sell, or offer, expose, or have in his possession for sale any apples packed in any package in which the face or shown surface gives a false representation of the contents of such package; and it shall be considered a false representation when more than fifteen per centum of such fruit is substantially smaller in size than, or inferior in grade to, or different in variety from, the faced or shown surface of such packing.

Section 9. Any person who misbrands or adulterates, or falsely represents apples within the meaning of this act, or who violates any of the provisions of this act shall, upon conviction thereof, forfeit and pay to the people of the State of Maryland a sum of not less than twenty-five dollars nor more than fifty dollars for the first violation and not less than fifty dollars nor more than one hundred dollars for each subsequent violation.

Section 10. No person shall be prosecuted under the provisions of this act when he can establish satisfactory evidence to the effect that he was not a party to the packing and grading of such articles and had no knowledge that the same were misbranded or illegally packed, or when he can establish a guaranty, signed by the person from whom he received such articles, to the effect that the same are not adulterated or misbranded within the meaning of his act. Said guaranty, or said satisfactory evidence, to afford protection, shall contain the true name and address of the party or parties from whom said articles were received, or who made the sale or shipment of such articles to such person.

Section 11. Definitions. The word "person" as used herein shall be construed to include both the singular and plural, individuals, corporations, copartnerships, companies, societies and associations. The act, omission or failure of any officer, agent, servant or employee acting within the scope of his employment or office shall be deemed the act, omission or failure of the principal. The words "closed package" shall mean a box, barrel, basket, hamper, or other package covered with burlap, tarlatan, slat or other covers, the contents of which cannot be seen or inspected when such package is closed.

Section 12. No person shall on behalf of any other person pack any apples for sale or transportation contrary to the provisions of this act.

Section 13. This act shall not apply to apples actually transported in barrels to storage within this State until the same are sold, offered or exposed for sale, packed for sale, or transported for sale. Regulations and requirements herein in relation to transportation shall not apply to common carriers.

Section 14. The business of packing and marketing apples in the State of Maryland is hereby declared to be affected with a public interest and is subject to regulation and control by the State.

Section 15. The enforcement of this act shall be vested in the State Board of Agriculture, and its officers, employees, agents and servants are authorized to enter upon the land and premises of any person within this State for the purpose of inspecting packages of apples and securing evidence of violation of this act. Provided, however, that any such grades or classes for apples packed in closed packages which may hereafter be established by the United States shall be established and promulgated by the State Board of Agriculture, as the official grades and classes for apples packed in closed packages in the State of Maryland.

Section 16. This act shall take effect July 1st, 1916.

VIBURNUM OPULUS NANA

The *Viburnum opulus,* or High-Bush Cranberry, is well known, also the *V. opulus sterilis,* or common Snowball, but the dwarf sterile variety *V. opulus nana* is not nearly so well known or used as much as it should be. This plant even at maturity rarely gets more than two feet high. The growth is very short and compact, individual plants forming complete little balls, with very little if any pruning. There is no plant among the shrubs that grows quite so neat and compact. It is a splendid thing for the foreground of shrubbery borders edging walks similar to the purpose for which box is used. Perhaps the one great objection to its use instead of box is that it is not evergreen, but during summer there is nothing better and it will thrive where box will perish in the winter, as it is extremely hardy. The best way to propogate it is by layering, as a few stool plants will produce a very great number.



From the U.S.D. of A.

THE LEAF BLISTER MITE OF PEAR AND APPLE

Red or green blister-like spots appearing in the early spring on the foliage of the apple and pear are usually due to the leaf blister mite. This is not an insect but a small animal, invisible to the unaided eye, which attacks standard varieties of pear and apple trees and often inflicts serious damage. Where trees are seriously infested, the premature fall of both fruit and leaves may result. In such cases a special application of lime-sulphur wash or other spray may be necessary. Ordinarily however, the regular orchard spraying is sufficient to control the mite. Badly-infested branches of the pear trees may be cut off and burned. Care should be taken not to confuse the work of the mite with the leaf-spot disease or the results of heavy spraying.

Describing the leaf blister mite, showing how it may be recognized, and giving methods for its control, the U. S. Department of Agriculture has issued a new Farmers' Bulletin, No. 722, "The Leaf Blister Mite of Pear and Apple," by A. L. Quaintance. The leaf blister mite passes the winter beneath the bud scales. There it waits for the opening of the buds and attacks the young leaves as soon as they push out in the spring. The tiny animals bore small holes from the underside of the leaves into the interior where they lay their eggs. This causes the small, pimple-like galls on the upper surface of the leaves. The spots later increase in size, sometimes to one-eighth of an inch, and on the pear tree are red and often brilliantly colored as they grow. In the case of the apple, the eruptions lack the more brilliant coloring and are found more along the margin of the leaf. In both cases the spots finally turn brown or black, and if the pest is abundant the leaves become ruptured and wrinkled.

More than 250 varieties of apples are attacked by the mite, injury being especially severe on some well-known commercial sorts, such as the Ben Davis, the King, Baldwin, Rhode Island Greening, and the Williams Favorite.

Where orchards are seriously infested, as has been noted in New York State, lime-sulphur washes give excellent results. They avoid the injurious effects upon fruit buds which sometimes result from the use of oil sprays. The wash should be applied thoroughly, coating the twigs and branches.

A standard solution of kerosene emulsion may also be used. The stock solution should be diluted with five parts of water for spraying purposes. One application should be given in the late fall, as soon as most of the leaves have fallen, and another in the following spring, before the trees put out foliage. If it is possible to give only one treatment, the sprays should be used in the fall. At this time many of the mites have not yet gone to the bud scales, but occur in the down covering the young wood, and hence are more easily killed.

DEEP DIGGING

The thoroughly practical man as well as the scientific, agree on the great value of deep digging. To such men, the present talk about worn out and abandoned farms and failing food supply is all nonsense. The remedy is a simple one. There is enough land in the United States to support many times its population, and then to spare, if properly cultivated. Gardeners of the Old School claim a man owning one acre of ground has really two, if he cares to plow and cultivate it deep enough.

Land is very much like a banking institution. You can draw interest and gains according to the amount of intelligent labor and fertilizer you invest,—usually with compound interest,—but if no deposits are made, the land or bank soon becomes insolvent. There is plenty of land in Europe, still producing good crops, that has been in cultivation since long before America was discovered, and worn out land is really a disgrace, showing bad management rather than fault of the ground itself.

The one prime necessity for keeping the ground in good heart, and so capable of producing good crops, is deep digging or plowing, as the case might be,—especially on heavy lands. However good the top spit of soil may be, if it is underlaid with undisturbed hard-pan, it is not likely to produce good crops. It must be remembered that plants can only take up the foods necessary to their growth while in solution. In other words, they cannot eat or absorb solids, so there must constantly be sufficient moisture in the soil to dissolve the plant foods that may be in contact with the roots.

A shallow soil, underlaid with hard-pan, dries out in a very short period. If the same kind of ground is dug deeply or sub-soil plowed, it will be much more retentive of moisture, thus conserving it during the dry weather, as it acts like a sponge, holding it rather than allowing the moisture to run off as it does through the myriad little channels that are always formed in undisturbed soil.

Sandy soils are least retentive of moisture, especially if underlaid with a gravelly sub-soil. Such soils are loose in texture, and deep digging is not so essential; but an abundant supply of organic matter in the form of stable manure or green manure crops, is always advisable.

The loamy soils and retentive clays are the ones it is most important to dig deeply. It would surprise many gardeners that have this class of land, if they would deeply trench their ground in the fall, throwing it up in ridges so as to allow the frost to get down deeply and disintegrate the soil. It would produce much better crops, and be much easier to work, and would yearly improve rather than deteriorate under such treatment.

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MORE SPECIALISTS NEEDED

Without being a pessimist, nearly every nurseryman is convinced that the nursery business is not quite as it should be, and many are the causes and remedies suggested.

As a rule when things are radically wrong the causes are fundamental and the remedy simple, although it may be drastic. Our business like Topsy has just grown or developed along the lines of least resistance. Like any other thing that developes without a well conceived plan, it is hardly likely to be satisfactory as the different parts begin to grow closer together and are dependent on each other. There was a time when the railways, cities and other large commercial enterprises were in much the same condition as the nursery business is now. In fact some are yet and will be until a master mind organizes them and adapts them to present conditions.

One of the great faults to be overcome is waste, as in over-production, duplication of effort and lack of ideals, and we shall have to look towards a scheme that will obviate these.

We can hardly look for a Rockefeller, or Hill or a Kaiser to acquire control and guide the destinies toward a definite goal. Our business is a democracy, and the mass must be taught to work towards a single purpose.

Success of an organization depends on its individual members subordinating their individual desires to the good of the whole.

We are all American enough to believe this is possible and practical. In looking around for examples it is worth noting that our allied profession, the Florist business, is very like our own and most will admit it has made greater progress in co-operation and exploitation and development of its markets than has our own.

Perhaps one of the least recognized reasons for this is the specialist. In the early days the old time florist tried to grow a little of everyhing and grew nothing well in comparison with what he produces now. As the demand for flowers and decorations increased, better stock and more of it was demanded and the rose, carnation, violet and chrysanthemum grower came into existence, until now the specialist is the rule rather than the exception.

The nursery business has now reached that stage when the demand for one thing is sufficient to warrant investment to produce it in perfection. It is true there are already many specialists but there needs to be more.

Fruits are perhaps the furthest developed along this line but the ornamental section of the business is sadly lacking in this respect. We need more Rhododendron, Azalea, Paeonia, Phlox, Delphinium, Street tree, Magnolia specialists, in fact the list is endless and the possibilities unlimited.

Decide on a good thing and grow it well so as to become headquarters for it, and these great United States can hardly fail but use all the stock than can be produced, and at remunerative prices. There never was a closed market for the best. It is hard to imagine a glut of A No. 1 stock of a choice thing.

THE REQUEST OF THE FEDERAL HORTICULTURAL BOARD

Doubtless all nurserymen in the Eastern States received the circular letter from Dr. C. L. Marlatt, Chairman of the Federal Horticultural Board, Washington, D. C., requesting them not to ship white pines, currants or gooseberries west of the following list of States: The Dakotas, Nebraska, Kansas, Oklahoma and Texas.

The request should be religiously complied with as the Federal Horticultural Board has full power to enforce a quarantine to protect the western white pine forests from the white pine blister rust.

This is an opportunity for the nurserymen to prove to the Federal Horticultural Board they are thoroughly in sympathy with its aims to protect the commonwealth and willing to co-operate in any practical effort to that end.

REMOVAL OF RECENT FREIGHT EMBARGO

One of the most businesslike things the American Association of Nurserymen ever did was the retaining of Mr. Curtis Nye Smith as counsel for the Association. It is already beginning to bear fruit to the great advantage of the nursery interests as instanced by the prompt lifting of the embargo on freight transportation due to congestion.

This was especially severe on the New England Roads.

Mr. Smith held a conference with officials of the New York Central and New Haven Railroads and succeeded in having the embargo lifted.

Credit should also be given to such influential men as Mr. J. H. Hale, of peach fame, who is a member of the Public Utilities of Connecticut.. and actively interested himself on behalf of the nurserymen.

MAINTAINING PRICES

At the present time the Chamber of Commeree of the United States, Washington, D. C., is actively engaged in trying to eneourage legislation to prevent price cutting in "identified merchandise." This term is used in connection with sueh articles as breakfast food that have a reeognized standard or well known trade mark.

The nurserymen would feel pretty good if there was no more price cutting in their goods than there is in such identified merchandise, as it is very seldom a customer ean purchase them below the regular priee.

The action of the Chamber of Commerce, however, does show how important it is to have a standard and also to maintain a priee above eost of production.

When an artiele has onee been sold eheap, or under eost, the market for it at a fair priee has been destroyed. Every nurseryman knows how diffieult it is to sell a seeond time to the same eustomer at an advaneed priee, even though he ean give all kinds of arguments as to the reason why he has to ask more this time than he did before and it stands to reason that the eustomer that has onee purehased fruit trees at a few eents apieee, eonsiderably under eost, will always be on the lookout for a bargain, but if a eustomer was onee made to understand that no sueh bargains exist it would soon be mueh the same as it is in the department stores of the present day. The eustomer goes into them and never questions the priee, he either takes it or leaves it at the priee asked.

Mr. A. T. Stewart, we believe, about three generations ago, revolutionized the retail business by adopting this method and with one stroke this great merehant abolished the demoralizing method of haggling. One priee to all was heralded as a great moral as well as an economie advanee.

This is the goal towards whieh all nurserymen should work, and while perhaps it eannot be done with the stroke of a pen if the thought is kept eonstantly in mind it will be sure to bear fruit. Few nurserymen are satisfied with the priees they reeeive, but their anxiety to get orders exeeeds their desire to hold up the priee to where it belongs.

Orleans, Franee, Mareh 20th, 1916.

To the Editor of the "National Nurseryman,"
Flourtown, Pa.

Dear Sir:—

I have been deeply interested with the report of the diseussion whieh had been raised by Mr. A. Weber at the last meeting of the Western Assoeiation of Nurserymen.

I eannot diseuss the question here: the situation of ornamental goods from Holland and England and I do not know how far the apprehensions of Mr. Weber are justified about them, but I think right to inform my American confreres that they need not fear the low competition in young ornamental stocks or young fruit stocks from France. On the eontrary, increased prices are to be expeeted on a number of varieties.

This rising of priees will be due to the faet that since the breaking out of the war propagation has been greatly curtailed and the cost of labor greatly increased, also by consequenee of the war, the increase in cost of all raw materials has had immediate effect on the cost of production.

Conclusion: Do not fear for the dumping of French nursery stocks, but on the contrary rising prices are to be expected.

The opinions explained ahead are quite personal.

Now I have to inform you as general Secretary of the Federation of Freneh Nurserymen and Horticulturists that, in France, all exporters of nursery stocks are opposed to the sale of their produce by dumping them in auction rooms anywhere. Being fully conscious that we must not ruin the trade of our buyers. We have never used this system of business demoralization. Obligations have been taken by all of us in this direction and up until now we have no reason to think they have not been faithfully observed.

I hope that the contents of this letter will be agreeable to you and to your readers and,

I remain, Dear Sir,
Yours faithfully,
E. Turbat.

Coneord, Ga., April 8, 1916.

Editor National Nurseryman,
Flourtown, Pa.

Dear Sir:—

The railroads of the State of Georgia are making application to the Georgia Railroad Commission for an increase in rates on many commodities. This application will be heard at the state capitol June 26. A big increase is asked for on shipments within the state, or on intra-state shipments. Fruit trees in boxes will go up nearly one hundred per eent. over the old rate and in ear lots over 200 per eent., if the requests of the railroads are granted.

The Georgia nurserymen will need all the help they ean get to fight this proposed inerease.

Yours truly,
Smith Bros. Nursery Co.

THE NATIONAL FLOWER SHOW

The National Flower Show, held in Philadelphia, Mareh 25th to April 2nd, was an inspiration to all who saw it.

The time of year prevented the nurserymen from being very mueh in evidenee and naturally the exhibits were mostly the products of the greenhouse.

The paid attendanee was estimated at 120,000 persons.

We have to take our hats off to the florists, when it eomes to exploiting their goods before the public and it makes us wonder if the nurseryman could not do more along that line.

We have not yet really begun to develop our parks and botanic gardens from this point of view, and yet if the florists can spend $36,000.00 for a six day exhibit and ean arouse sufficient popular interest in it to net a profit of $14,000.00 gives food for thought.

Asiatic Crab Apples and Other Plants at the Arnold Arboretum

About the second week in May the Crabapples from eastern Asia will be the most conspicuous flowering plants in the Arboretum. The old collection is on the left-hand side of the Forest Hills Road. There is a larger collection containing a large number of varieties at the eastern base of Peter's Hill, and the species found by Wilson in western China have also been planted on the southern slope of Bussey Hill, just below the Overlook. The best known of the Asiatic Crabapples in gardens is called *Malus floribunda.* It is shrubby rather than treelike in habit and makes a broad, round-topped bush sometimes twenty-five feet tall and broad. This plant blooms profusely every year and is most beautiful when the flowers begin to open for they open gradually and in succession, and the contrast of the white flowers with the bright rose-colored flower-buds greatly adds to the beauty of both. The fruit is not much larger than a pea, and adds little to the ornamental value of this plant. The origin of *Malus floribunda* is obscure. Although first sent to Europe from Japan more than sixty years ago, it is not a native of Japan and was probably carried there from China with many other plants found in Japanese gardens and long believed by European travellers to be native to the Island Empire. By some botanists it is thought to be a hybrid, and although its seedlings show some variation this hypothesis has not yet been clearly proved. The whole question of the origin and proper limitation of the species of Asiatic Crabapples is greatly complicated by the fact that all apples hybridize so freely that plants raised from seed gathered from plants in a large collection like the one in the Arboretum rarely resemble the parent plant. This tendency to natural hybridization among the apples, while it makes endless trouble for the systematic botanist, has advantages for the gardener, as has already been seen in the Arboretum where one of the most beautiful of all flowering apples, now called *Malus Arnoldiana,* appeared a few years ago among seedlings of *M. floribunda.* This plant is also shrubby in habit, with flowers more than one-half larger than those of *M. floribunda* and much larger fruits. It is probably a hybrid with some of the large-flowered hybrids of the Siberian *Malus baccata.* Near the Administration Building are large seedling plants raised from *M. floribunda* which are peculiar in their persistent fruit which remains in good condition on the branches until spring and supplies the birds with an abundant supply of winter food. Another supposed hybrid between two species of eastern Siberia, sometimes called *Malus cerasifera,* is common in the Arboretum in various forms. With plenty of space this grows into a large, wide-spreading tree. The pure white flowers are perhaps larger than those of any of the other Crabapples. The fruit on different plants varies in color and greatly in size and shape, on some trees retaining and on others losing the calyx. Selected forms of this tree can only be obtained by grafts. *Malus Halliana,* usually known as the Parkman Crab, was found in Japanese gardens by Dr. Hall and sent to the United States in 1861 in the first consignment of plants to reach the United States direct from Japan, and was first cultivated by Francis Parkman, the historian, in his garden on the shores of Jamaica Pond, now in the Boston Park System. This is a treelike shrub with erect and spreading stems and is smaller than *Malus floribunda,* differing from it in its darker bark, thicker leaves deeply tinged with bronze color when they unfold, and semidouble, bright rose-colored flowers drooping on long slender stems, and in its smaller fruit which is not larger than a small pea. Some persons consider this the most beautiful of the Crabapples, and certainly the color of the flowers is unlike that of any of the others. The origin of this plant was unknown till Wilson found it growing in western China near the borders of Tibet. Another Chinese Crab, *Malus spectabilis,* is usually found in gardens only in the form with double or semidouble flowers. It is a tree with erect, slightly spreading stems which form a vase-like head, and in some of its forms is an attractive and useful plant. *Malus Scheideckeri,* which is no doubt a hybrid although of uncertain origin, is a small tree of pyramidal habit which usually produces its comparatively small pink flowers in such profusion that it should find a place in every collection of these plants. *Malus (Pyrus) toringo* was first used as a name for a Japanese Crabapple, and there are two or three Japanese forms in the collection here under that name. In 1882 the Arboretum received from Dr. Bretschneider, then at Pekin, seeds of a Crabapple which has been growing here ever since and has been considered a form of the Japanese *M. toringo* from which, however, it differs in its much smaller and later flowers and smaller fruits which on some individuals are red and on others yellow. Although one of the least showy of the Crabapples, this Chinese tree is valuable as it flowers after the others have passed. Two other Japanese species are well represented in the collection from seeds collected by Professor Sargent in Japan in 1892, *Malus zumi* and *M. Sargentii;* the former is a common tree on the mountains of central Japan and the latter is an inhabitant of the borders of salt marshes in Hokkaido. The dwarf habit of this species makes it a good subject for small gardens. The rather small flowers are produced in great abundance, and the dark red fruits remain on the branches until growth begins the following spring. *Malus baccata* is a common tree in eastern Siberia, and was one of the first of these plants introduced into Europe. It has no doubt played an important part in the introduction of many hybrid forms, including the so-called Siberian Crabs, like the "Transcendent" and many other well known varieties. These are supposed hybrids between the common apple and *Malus baccata;* among them are some of the most beautiful flowering plants in the whole Apple Group. The flowers are followed by brilliant fruits valuable in cooking and for preserves. The Siberian Crabs are hardier than any of the domestic Apples and have therefore been found valuable in some of the colder parts of Canada and the United States where other Apples cannot be grown. In cultivation *Malus baccata* is a tall narrow tree with small

nearly white flowers and fruit about the size of a pea. There is a fine specimen of this tree in front of the gardener's house in the Harvard Botanical Garden in Cambridge. It is impossible within the limits of this article even to mention the names of all the species, hybrids, forms and varieties of these plants in the collection which has been in process of formation for nearly forty years and must now be one of the most complete in existence. It will well repay a careful study, especially the new collection at the base of Peter's Hill. Few plants are better suited to the New England climate than the Crabapples; they all produce beautiful flowers and many of them brilliant fruit. It should not be forgotten, however, that all Apple-trees are liable to be attacked and killed by the San Jose scale, and that it is unwise to plant them unless this pest can be kept in check by careful spraying.

A New Diervilla

Among the plants brought from Korea a few years ago into the Arboretum by Mr. Jack is a form of *Diervilla florida* which has been named var. *venusta*. This is one of the handsomest of all Diervillas and one of the earliest to flower. It is very vigorous and every year completely covers itself before the leaves are half grown with large rosy pink flowers. Few of the shrubs introduced by the Arboretum in recent years give greater promise of usefulness and popularity in northern gardens.

Bush Honeysuckles

For northern gardens there are no more beautiful shrubs than some of the Bush Honeysuckles, with their myriads of yellow, white, rose color or red flowers which in summer or autumn are followed by lustrous, usually scarlet fruits. Many of these shrubs are able to show their greatest beauty in this climate, but this can be obtained only by planting them in rich soil and with sufficient space for free growth in all directions. In poor soil and when crowded by other plants they are usually miserable objects. The large growing kinds like the different forms of *L. tatarica, L. bella* and its varieties with white and with rose-colored flowers and *L. notha* should be planted as isolated specimens at least twenty feet from any other plant. *L. Morrowi,* a plant of the Amoor region in eastern Siberia requires even more space, for its lower branches which cling close to the ground naturally spread over a great area. This shrub has gray-green foliage, comparatively large white flowers and bright red fruits. It is one of the most useful of the early introductions of the Arboretum into the United States, and has been largely planted in the Boston parks. Like many other Bush Honeysuckles *L. Morrowi* hybridizes easily with other species, and most of the plants raised from seeds, now sold by American nurserymen as *L. Morrowi* are hybrids of that species with *L. tatarica* and are erect growing plants of little value for those who want plants with the peculiar habit of *L. Morrowi.* Among less vigorous growing plants, attention is called to two hybrids of *L. Korolkowi* in the collection, *L. amoena* and *L. Arnoldiana.* These have small, gray-green foliage and small, bright pink, and very attractive flowers, and are hardly surpassed in grace and beauty by any honeysuckles in the collection.

Flowering Ashes

This is the common name for a group of Ash trees (Fraxinus) with elongated white petals which make the flowers conspicuous. They are natives of southern and southeastern Europe, the Himalayas and western and northern China. A shrubby species, *F. dipetala,* is common in California, and two Mexican species extend into the territory of the United States, one in southern Texas and the other in Arizona where it ranges as far north as the rim of the Grand Canon of the Colorado River. The type of the group, *Fraxinus Ornus,* is a common tree in southern Europe, and is now in flower at the upper end of the Ash Group near the top of the eastern slope of Bussey Hill. Manna is the hardened sap of this and a related species. Another species of Flowering Ash, *F. Bungeana,* is also in flower near *F. Ornus.* This is an old inhabitant of the Arboretum, and is an irregularly growing shrub ten or twelve feet high from the mountains near Peking. It flowers here regularly every year and produces large crops of seeds. The plant of a third species, *Fraxinus Paxiana,* will soon be in flower. This is one of Wilson's discoveries in western China and is flowering this year for the first time in America. It is a small tree remarkable for the large size of the nearly globose terminal winter-buds.

NEW QUARTERS FOR McHUTCHISON & CO.

Last May McHutchison & Co., the Import House, 17 Murray street, New York City, purchased the building at 95 Chambers street; which runs through to 77 Reade street, a full block long. The building consists of five floors, basement and sub-basement. They expect to occupy part of the building May 1st.

Since they commenced business 15 years ago, they have moved four times and each time have doubled their occupied space. The latest move will give them room to grow without the necessity of changing their address.

All communications should now be addressed to McHutchison & Co., 95 Chambers street, New York.

C. E. Wilson & Co., of Manchester, Conn., are planning to start in the nursery business, growing a general line of fruit and ornamental stock, also seedlings in variety. Mr. Wilson, who will personally superintend all of the work has had long experience in growing and handling all kinds of stock and we feel sure will please the most critical.

Can you inform me where I can obtain peach trees grafted on plum stocks? I am informed they are more hardy and do better in a heavy clay soil than those budded on peach stocks.

C. W. E.

A MARKET FOR EVERGREEN SHRUBS

There is seldom a surplus of evergreen shrubs, very few, if any, find their way to the brush pile, and those nurserymen who do a retail business in ornamental nursery stock, or supply the landscape gardeners, know there is a constant shortage. This shortage is perhaps more real than apparent, because something else is often planted where this class of plants should be used.

Positions around the bases of houses, walls, and such like call for evergreen treatment to insure a good appearnace, winter as well as summer. A trip through a suburban section of a large city makes this very noticeable. The locality may be very beautiful in the summer, but as soon as the leaves fall things look very naked and forlorn. A more liberal use of the evergreen shrubs would do much to relieve this condition. Nurserymen should grow and push them more. Like all good things, they are of slower growth than the commoner shrubs and, of course, command a higher price.

The Rhododendrons are perhaps the best known of this group of plants, and due to importations there is usually a good supply, but the Rhododendron is not a very adaptable plant, it will not thrive in all positions, localities and soils.

The following are much more adaptable: *Mahonia aquifolia* and *M. Japonica, Ilex crenata, Abelia grandiflora* a splendid flowering shrub hardy as far north as New York. *Ligustrum Japonicum, L. lucidum, Azalea amoena* and varieties, several varieties of *Buxus, Euonymus radicans vegatus, Euonymus Japonica* and its varieties, *Kalmia latifolia, Andromeda Japonica* and *A. floribunda.* In addition to these, there are the prostrate and semi-prostrate junipers, Canadian and Japanese yews, *Pinus mughus,* and the dwarfer kinds of *Thuya* and *Retinispora.* While these latter can hardly be classed as shrubs, they are the type of plant that lends itself to the effective planting of porch beds, and those positions in proximity to masonry where small growing evergreens are needed.

A freer use of this type of plant would undoubtedly find popular favor, but it is largely up to the nurseryman to grow more and demonstrate them, to insure a widening market. A recent trip through the southern States revealed to the writer a sad lack of knowledge of the possibilities of beautifying the home grounds. With mild winters, where the *Olea fragrans,* Camellias, Aucubas, Cherry Laurel will thrive, without much protection, the aim should be for winter effects, as the summers will take care of themselves, and a little more consideration for winter effect in the North, will not be without good results although we cannot hope to equal the sunny South.

The Georgia State Board of Entomology has just published a bulletin on The Principal Parasites of the Peach, by W. W. Chase, Assistant State Entomologist and the Care and Management of Peach Orchards by R. C. Berckmans, President of the State Horticultural Society.

The Peach Industry is a very important one in Georgia and the bulletin will doubtless prove of great value to the peach growers.

A noteworthy feature is, that its authorship shows cooperative effort between the nurseryman, orchardist and entomologist extremely gratifying and promises much in accomplishment towards the welfare of the industry.

"I notice in your last issue mention of Euonymus on several pages, both of the reading matter and advertising. Now that Prof. Bailey tells us that it is Evonymus, why cannot your paper set a proper example and call it by the right name?"

H. E. W.

We note that in Nicholson's Dictionary it is claimed the name was given by Theophrastus from *eu* good and *onoma,* a name. This seems pretty good authority and while Prof. Bailey states that Evonymus is often spelled Euonymus, he does not give the authority for the change.

Most nurserymen know it under the old spelling, and while we like to be right we always hesitate very much in changing a name that has once established itself, such as the Euonymus.

EDITOR.

IDAHO QUARANTINES EASTERN WHITE PINES, CURRANTS AND GOOSEBERRIES

QUARANTINE ORDER NO. 8.

March 1, 1916.

WHEREAS, it has been established that the white pine blister rust (Peridermium strobi) is prevalent throughout the states of New Hampshire, Vermont, Massachusetts, Connecticut, New York and Pennsylvania; and,

WHEREAS, there is danger of the introduction of this disease into the great white pine forests of the State of Idaho through shipments of the five-leaved pines, currant and gooseberry bushes;

THEREFORE, IT IS HEREBY ORDERED AND DECLARED, that a quarantine be and is hereby established against the importation of any of the five-leaved pines, currant and gooseberry bushes from the above named states;

All quarantine guardians and deputy state horticultural inspectors are hereby instructed and required to refuse admission into Idaho of any shipments of nursery stock of five-leaved pines, currant and gooseberry bushes from the above named states. It shall be the duty of the deputy horticultural inspectors or other quarantine guardians to immediately deport such shipments or destroy them by burning.

All expense incurred in deporting or destroying such shipments shall be paid by the consignee or owner.

Any person who sells or offers for sale, within the State of Idaho, pine seedlings, currant or gooseberry bushes from the above named states in violation of this quarantine order will be liable to prosecution under the state laws.

GUY GRAHAM,
State Horticultural Inspector of the State of Idaho.
MOSES ALEXANDER,
Governor of the State of Idaho.
Attest: GEORGE R. BARKER,
Secretary of State.

Answers to Correspondents



I am well pleased with the "National Nurseryman."

Will someone through its columns, give me a remedy for raspberry and strawberry anthracnose?

Also a remedy to prevent nursery stock such as apple trees from being girded by rabbits?

Spraying with Bordeaux mixture is perhaps the best preventative of anthracnose for both strawberry and raspberry plants, but if the plantations are badly infected it would be better to rotate the crops and plant the ground with something else for a time.

John Weathers in "Commercial Gardening" says:—

The most certain way in dealing with diseased strawberry beds, is to mow off the leaves soon after the fruit has been picked, and, when the mown leaves are fairly dry, to cover the whole ground with a sprinkling of straw, litter, or other material that will burn well, and set it on fire. This effectually disposes of not only the diseased spore carrying leaves but all dead fragments.

The spring following spray with sulphide of potassium.

The one really effective remedy to prevent injury to trees by rabbits, is to get rid of the rabbits, and we are inclined to think this would be as cheap a remedy as any that could be applied to a large quantity of stock.

Spraying the trunks with fish oil soap is said to prevent rabbits from girdling them.

We should be glad if some of our readers would give their experiences. —*Editor.*

GRAFTING

Grafting is resorted to principally as a ready means of increasing the stock of desirable varieties; but some of the other advantages of the practice are sometimes overlooked. Let us briefly glance at a few. Old orchard trees very often become enfeebled and afford indifferent returns. Such may be rejuvenated by lopping one or more of the upper strong arms and grafting them with a strong-growing variety, which from their greater foliage will induce more vigorous root action, drawing the sap to branches which are too weak to attract it themselves. The benefit of grafting such trees with a more vigorous variety is enhanced by a dressing of fresh soil or manure, so as to enable the roots to reciprocate the increased action of the head. In this way an orchard of old trees may be kept in a flourishing condition without resorting to the usual practice of beheading and re-grafting.

Where the latter practice is resorted to with the object of changing an unsatisfactory for an approved kind, discrimination must be made between strong and moderate growers; for to graft a weak grower upon one naturally robust is not, as may be supposed, to supply the vigour wanting in the former's natural constitution, but to overcharge it with sap in excess of its digestive power, debilitation ensuing unless part of the stock is retained above the grafts, in which case the latter will flourish. The influence of the scion over the stock is so complete that it is doubtful if the latter has any influence on the former in three or four years, therefore in seeking to renovate old trees scions of strong-growing varieties should be employed, the root action being dependent upon healthy leaf growth.

The grafting of the Pear upon the Quince stock is not in all cases satisfactory, or of Apples on the Paradise stock; for though both are strong rooters yet they are comparatively weak growers, and to graft them with Pears or Apples of similar weakness adds nothing to the stock's power of root production, matters remaining much as they were before grafting, unless a growth of a stronger variety be encouraged upon the same stock, but kept with in reasonable limits by judicious pruning. But by grafting those stocks with vigorous-growing Apples and Pears, or the practice of grafting weak-growing stocks with vigorous scions induces vigorous root action.

By grafting, therefore, rightly understood, we aim at something more than the mere employment of stocks for propagating purposes, but overcome difficulties of soil and climate to a certain extent, making a tree more serviceable, enhancing its productiveness and the quality of its fruit.

E. Denny, *in the Journal of Horticulture.*

NURSERYMEN WAKING UP

American Association to Become Bigger, More Aggressive in Management, Broader and More Valuable, Hereafter

Under the new constitution the usefulness of the Association is to be greatly enhanced and the outlook for greater future success is very promising.

Notwithstanding that the new schedule of terms for membership requires some to pay larger fees than hitherto the registration for 1916 at this writing equals that of last year, with more than double the revenue. A few pessimists predicted failure, being unable to grasp the vision of the future possibilities in the line of achievement. But there is encouragement in the tone of the correspondence accompanying remittances of membership fees. One writes, "Have not done $10,000 of business the past year; I did before the war and expect to do again; but I see no reason why an active member doing a business of less than that amount should get off with a smaller fee than an associate member." Another, a New Englander, writes "I am in sympathy with the effort to raise the standard of membership and increase the value of the Association, so that it will mean something," and he enclosed a check for $65 as his fee. Such declarations furnish illustrations of unselfish loyalty.

The attendance at the forty-first annual convention at Milwaukee, June 28-30, ought to be a large and inspiring one. The new constitution will be further discussed after its first year of action, and the program will include items of most vital interest to the trade. The management of Hotel Wisconsin have been liberal in their proposals, and members should write early for rooms.

Not many days remain in which to send in memberships, and, busy as members doubtless are, we urge them to take the few minutes necessary to attend to this item of business, and thus facilitate the work of preparing the Badge Book for publication.

Communicate at once with Secretary John Hall, 204 Granite Building, Rochester, N. Y.

BALING

The baling of trees is perhaps the most popular method of packing for shipment, and it is the least expensive to the customer. A bundle of trees, properly baled, will carry to its destination in first class shape, but if improperly done it is a poor method of shipping, and the box is much to be preferred.

The bales should not be too large, or in other words, too many trees should not be put into one bale, as the material used for tying will only stand a certain amount of weight.

It takes an experienced man to so place the trees that they will come together in the least possible compass and yet not either rub one another or break. Everywhere the cord comes in contact with the bark it should be well padded to prevent chafing.

Care should be used in putting in the branches and tying the trees together so as not to injure the bark, and when the trees are so tied up in the least compass possible, the tops should be carefully protected by straw. Straight rye straw is found to be the best material, if it can be procured.

The packing of the roots, however, is the most important part of putting up a bale of trees. Too often this is entirely neglected and the trees are shipped as if they were a bundle of dry sticks without any protection at all, with perhaps the exception of a little burlap tied around the roots, and as very often happens the bundle stands on windy, dry sidings for several days and by the time they reach the customer there is very little hope of the trees growing.

It is not easy to get together suitable material to use as packing to go around the roots. However, short oat straw, thoroughly wet down, is a good substance. Moss, sawdust, shingletow and excelsior, in fact any substance that is fairly light and will absorb and retain moisture is good for the purpose. This should be thoroughly wet before being placed around and worked in among the roots and then the burlap sewed very tight, so as to keep the roots well covered. If this is only done the bale of trees may be shipped and be en route two or three weeks, during the dormant period, without coming to the slightest injury.

When only one or two trees are being shipped there is always danger of the tops becoming broken, as there is not bulk enough to give strength to the bale. In cases like this the trees should be tied to a stout stake to give the necessary protection.

It is next to impossible to make a good job of baling head grafted trees, such as *Catalpa Bungei*, Japanese Weeping Cherry and the Weeping Bulberry, and these invariably carry much better when boxed.

A well packed bale is about as good an advertisement as the nurseryman can have and no time or expense is ever wasted that adds to the efficiency of the job.

AMERICAN ASSOCIATION OF NURSERYMEN

President—E. S. Welch, Shenandoah, Iowa.
Vice-President—John Watson, Newark, N. Y.
Treasurer—Peter Youngers, Geneva, Neb.
Secretary—John Hall, Rochester, N. Y.
Executive Committee—President, E. S. Welch, Shenandoah, Iowa, Chairman; J. B. Pilkington, Portland, Oregon, one year; Lloyd C. Stark, Louisiana, Mo., one year; J. H. Dayton, Painesville, Ohio, two years; H. B. Chase, Chase, Ala., two years; J. R. Mayhew, Waxahackie, Texas, three years; Theo. Smith, Geneva, New York, three years; Vice-President, John Watson, Newark, N. Y., ex-officio.
Attorney for Association—Curtis Nye Smith, Boston, Mass.

Chairmen of Committees

Transportation—Chas. M. Sizemore, Louisiana, Mo.
Tariff—Irving Rouse, Rochester, N. Y.
Legislation East of Mississippi River—Wm. Pitkin, Rochester, N. Y.
Legislation West of Mississippi River—Peter Youngers, Geneva, Neb.
Co-Operation with Entomologists—L. A. Berckmans, Augusta, Ga.
Program—L. C. Stark, Louisiana, Mo.
Exhibits—Albert F. Meehan, Dresher, Pa.
Arrangements and Entertainment—T. J. Ferguson, Wauwatosa, Wis.
Publicity—J. R. Mayhew, Waxahackie, Texas; L. C. Stark, Louisiana, Mo.
Editing Report—John Hall, Secretary, Rochester, N. Y.
Root Knot—E. A. Smith, Lake City, Minn.
Membership—Will B. Munson, Chairman, Denison, Texas.
Finance—J. H. Dayton, Painesville, Ohio; T. J. Smith, Geneva, N. Y.; John Watson, Newark, N. Y.

STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irvine Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H. W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

Canadian Association of Nurserymen—President, E. D. Smith, Winona; secretary, C. C. R. Morden, Niagara Falls, Ont.

Connecticut Nurseryman's Association—President, Walter E. Campbell, New Haven, Conn.; secretary, F. L. Thomas, Manchester, Conn.

Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Litooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell, Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, E. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, E. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York. Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio· secretary, W. B. Cole, Painesville, Ohio.

Oregon—Washington Association of Nurserymen—President, C. F. Breilhaup, Richland, Wash.; secretary, C. A. Tonneson, Tacoma, Wash.

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Andorra, Philadelphia. Secretary, Henry T. Moon, Morrisville, Penna.

Southern Nurserymen's Association—President, Milton Moss, Huntsville, Ala.; secretary-treasurer, A. I. Smith, Knoxville, Tenn. Next meeting, Hendersonville, N. C.

Tennessee Nurserymen's Association—President, A. I. Smith, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Tennessee State Florists' Association—President, Karl P. Baum, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Deninson, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas.

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

BOOK REVIEW

DISEASES OF CULTIVATED PLANTS AND TREES

There is such an overwhelming mass of writings on the subject of plant diseases that the student or practitioner cannot possibly wade through them all. Diseases of Cultivated Plants and Trees by George Massey is a work concrete and comprehensive and by an authority on the subject. Mr. Massey is connected with the Royal Botanic Gardens, Kew, England, and the leading authority in that country.

The work is necessarily technical, yet written in such a plain simple way that it is thoroughly comprehensive to the lay mind, enabling the reader to identify the disease and apply the remedy.

It is published by The MacMillan Company, New York, and sells for $2.25.

HOW TO GROW ROSES

The Conard & Jones Company, West Grove, Pa., are to be congratulated on their new book "How to Grow Roses.

A book on the subject of roses by the firm of Conard & Jones, who have been identified in the growing of them for so long is sufficient warranty of the sound, practical nature of the contents and J. Horace McFarland Co., who printed it for the typography and workmanship. The color work and half tones with which it is copiously illustrated are unusually good.

From a nurseryman's point of view perhaps the happiest features, are its digestible size and the absence of all matter that would give the impression of advertising their own wares.

Roses are the subject and the author has stuck closely to it.

The book sells for one dollar and ought to meet with an enormous demand.

THE PRINCIPLES OF PLANT CULTURE

A book under the above title by the late E. S. Goff revised by J. G. Moore and L. R. Jones, of the University of Wisconsin and edited by Prof. L. H. Bailey is published by The MacMillan Co., New York.

The old-time gardener acquired his knowledge by dearly bought experience without knowing the fundamentals of his profession.

This book belongs to the new order of things. It is a text book for beginners in agriculture and horticulture and gives the student a grasp of the fundamentals so essential if he wishes to become a master in his profession and cultivate the soil with his brains as well as his muscles. Price $1.25.

SUBTROPICAL VEGETABLE GARDENING

Subtropical Vegetable Gardening by P. H. Rolfs, Director of the Experiment Station of Florida is the title of a new book of the Rural Science Series edited by Prof. L. H. Bailey.

Perhaps a more appropriate title would have been Vegetable Growing in the Southern States as it treats entirely of growing vegetables which are largely shipped to the northern markets for winter and early spring consumption.

Fertilizer formulas, time for planting and sowing, diseases and remedies, in fact all necessary information on the subject is given.

The work is readable and practical, and should be extremely valuable to the vegetable gardener in subtropical sections of the country.

Published by the MacMillan Co., New York. Price $1.50.

A descriptive list of *Paeonia sinensis* comes from Kallen & Lunnemann, Boskoop, Holland, that is exceptionally well gotten up and a little unusual as a trade list.

It is a successful attempt to present their goods in an attractive way without undue flattery.

Pæonia growers should write for a copy as the contents have evidently been prepared with great care.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC.

Required by the ACT OF CONGRESS OF AUGUST 24th, 1912

Of the NATIONAL NURSERYMAN, published monthly at Rochester, N. Y., for April 1st, 1916.

State of Pennsylvania,
County of Philadelphia.

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared Thomas B. Meehan, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the NATIONAL NURSERYMAN, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation) etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24th, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse side of this form: to wit:

1. That the names and addresses of the publisher, editor, managing editor and business managers are:

Publisher—THE NATIONAL NURSERYMAN PUBLISHING CO., INC., Rochester, N. Y.

Editor,—ERNEST HEMMING, Flourtown, Pa.

Managing editor,—ERNEST HEMMING, Flourtown, Pa.

Business Managers, Dresher, Pa.

2. That the owners are:

Mrs. Ellen B. Yates, Rochester, N. Y.

James McHutchison, New York City, N. Y.

Thomas B. Meehan, Dresher, Penna.

Albert F. Meehan, Dresher, Penna.

3. That the known bondholders, mortgagees and other security holders owning or holding 1 per cent. or more of total amount of bonds, mortgages, or other securities are: NONE.

THOMAS B. MEEHAN, Business Manager.

Sworn to and subscribed before me this first day of April, 1916.

Victor Paul, Notary Public.

(My commission expires January 21st, 1919.)

OUR FIFTY WORST WEEDS

Descriptive List Which Aids Farmers and Nurserymen to Apply Proper Methods—Three Kinds of Weeds Described.

The table printed herewith gives an alphabetieal list of the 50 worst weeds of the United States, with information whieh will enable readers to identify them. This table is arranged with the idea of aiding farmers in applying the methods of eontrolling weeds deseribed fully in Farmers' Bulletin 660, "Weeds and How to Control Them." The following sums up the prineiples of eontrol of weeds, whieh the author of the bulletin believes eosts the Amerieau farmer several hundred million dollars every year.

Far more important than to kill weeds is to avoid having weeds to kill. In other words, the farmer should aid to prevent rather than eure the evil. A farm ean be made almost free of weeds by strietly observing the following prineiples; (1) Prevent weeds from going to seed on the farm; (2) prevent weed seeds being brought to the farm; and (3) in the ease of perennial weeds, prevent them from making top growth and thus finally starve out the underground parts.

Annual weeds live only one year, maturing their seeds and then dying. Biennial weeds live two years; during the first year they grow rather slowly, produeing usually a taproot and a rosette of leaves elose to the ground, but the seeond year they send up flower stems that produee seed and then die. As the annuals and biennials propagate themselves by seeds alone, it is neeessary to observe only the first two of the principles stated above in their eontrol.

Perennial weeds, on the other hand, produee eaeh year underground parts, whieh live over to the next year and produee top growth. These weeds propagate themselves by their underground parts as well as by their seeds, and, even if prevented from going to seed, keep on growing. In dealing with perennials, therefore, it is neeessary to observe all three of the prineiples.

Descriptive list of the fifty worst weeds of the United States.

[A–annual, B–biennial, P–perennial.]

Common name, botanical name, and duration of life.	Color, size and arrangement of flowers.	Sections where injurious.	Method of seed distribution; vegetative propagation of the perennials.	Place of growth and products injured.
Bermuda grass, wiregrass (*Capriola dactylon*), P.	Purple; 1-12 inch; spikes.	Maryland to Missouri and southward.	Seeds sparingly; rootstocks.	Fields and lawns; hoed crops.
Bindweed, field bindweed (*Convolvulus arvensis*), P.	White or pink; 1 inch; solitary.	Entire United States, especially California.	Grain and flax seeds; creeping roots.	Rich, moist soils; grain and hoed crops.
Bindweed, wild morning glory (*Convolvulus sepium*), P.	White or rose; 2 inches; solitary.	Mississippi Valley region.	Grain and flax seeds; rootstocks.	Rich prairie and river bottoms; corn and small grain.
Bitterweed, fennel, yellow dog fennel (*Helenium tenuifolium*), A.	Yellow; ¾ inch; head.	Virginia to Kansas and southward.	Wind, hay, animals.	Meadows and pastures; injures live stock and taints milk.
Broom sedge (*Andropogon virginicus*), P.	Green; ¼ inch; racemes.	Massachusetts to Michigan, Florida, and Texas.	Wind; short rootstocks; plants in tufts.	Fields and waste lands; pastures and meadows.
Buffalo bur, sand bur (*Solanum rostratum*), A.	Yellow; ½ inch; solitary.	Illinois and Colorado to Texas.	Plants rolled by wind; seeds in hay and by animals.	Fields; grain and hoed crops, wool.
Bull nettle, horse nettle (*Solanum carolinense*), P.	Purple; 1 inch; solitary.	Entire United States.	Plants rolled by wind; running roots.	Everywhere; grain and hoed crops, pastures.
Bur-grass, sand bur (*Cenchrus carolinianus*), A.	Green; 1-3 inch; bur.	Maine to Florida and westward to Colorado.	Animals, especially sheep.	Sandy land pastures and waste places; pastures and wool.
Chess, cheat (*Bromus secalinus*), A.	Green; spikelets in panicles.	All grain sections.	Grain seed, especially wheat.	Everywhere; grain fields.
Chickweed, common chickweed (*Alsine media*), A.	White; ⅛ inch; cymes.	Entire United States.	Grass and clover seed, animals; has a long seeding period.	Meadows, lanws; winter crops.
Cocklebur, clotbur (*Xanthium americanum*), A.	Green; ¼ inch; head.	.... do	Carried by animals.	Cultivated fields and waste places; hoed crops and wool.
Crab-grass (*Syntherisma sanguinale*), A.	Green; spikes	Entire United States, especially the South.	Clover and grass seed, hay, animals.	Cultivated fields, gardens, lawns; hoed crops.
Daisy, oxeye daisy (*Chrysanthemum leucanthemum*), P.	White with yellow center; 1 inch; heads.	Maine to Virginia and Kentucky.	Clover seed, hay; woody, rather short rootstocks, but largely by seed.	Pastures, meadows, roadsides; hay, pasturage.

Common name, botanical name, and duration of life.	Color, size and arrangement of flowers.	Sections where injurious.	Method of seed distribution; vegetative propagation of the perennials.	Place of growth and products injured.
Dandelion (*Taraxacum officinale*), P.	Yellow; 1¼ inch; head.	Entire United States.	Wind; taproot, which spreads but little.	Lawns, meadows, waste places; hay and lawns.
Dock, yellow dock, sour dock (*Rumex crispus*), P.	Green; ¼ inch; panicle.	.... do	Hay and straw, clover and grass seed; taproot, which spreads but little.	Hay, small grain, and hoed crops.
Dodder, alfalfa dodder, field dodder (*Cuscata arvensis*), A.	Yellow; ⅛ inch clusters.	All clover and alfalfa regions.	Hay, clover, and alfalfa seed.	Clover and alfalfa fields
Dogbane, Indian hemp (*Apocynum cannabium*), P.	Greenish white; ¼ inch; terminal clusters.	Upper Mississippi Vayley.	Wind; creeping root.	Fields with sandy soil; pasture, grain and hoed crops.
Fern, brake (*Pteridium aquilinum*), P.	No flowers.	Northwestern States and the Pacific coast.	Spores scattered by Wind; running roots.	Logged-off land, meadows, and pastures.
Fleabane, horseweed, (*Erigeron canadensis*), A.	White; ¼ inch; heads in cymes.	Entire United States.	Hay, grass and clover seeds.	Meadows, pastures, and grain fields.
Foxtail, yellow foxtail, pigeon grass (*Chaetochloa glauca*), A.	Green; spikes	.... do	Animals, hay, grain, and grass seeds.	Land cultivated in early part of season; young grass and clover seedlings.
Hawkweed, orange weed, devil's paintbrush (*Hieracium aurantiacum*), P.	Orange; 1 inch; heads.	Maine to Ohio	Wind, grass and clover seeds; runners similar to strawberry.	Untillable pastures and meadows.
Iron weed (*Verno noveboracensis*), P.	Purple; 1-3 inch; heads	Maine to Maryland and Iowa to Kansas.	Wind; short thick rootstocks, making plant grow in bunches.	Pastures and meadows.
Jimson weed (*Datura stramonium*), A.	Purple; 3 inches; solitary.	Maine to Minnesota and Texas.	Pods and plants blown by wind.	Pastures, barnyards, and waste lands; seeds, flowers, and leaves poisonous.
Johnson grass (*Holcus halepensis*), P.	Green; ⅛ inch; panicle.	Virginia to Texas and California.	In hay, grain, and grass seed; running rootstocks.	All crops except hay.
Lamb's - quarters, pigweed, (*Chenopodium album*), A.	Green; very small; panicle	Entire United States	Grain and grass seed.	Grain fields and hoed crops.
Lettuce, prickly lettuce (*Lactuca virosa*), A.	Yellow; ¼ inch; heads in panicles.	Ohio to Iowa, Utah to California.	Wind	Everywhere; all crops.
Milkweed, common milkweed (*Asclepis syriaca*), P.	Purple; ½ inch; umbels.	New York to Minnesota	Wind; creeping, roots.	All crops and in pastures.
Morning-glory (*Ipomea hederacea*), A.	White, purple, or blue; 1½ inch; solitary.	New York to Missouri.	Corn stover, straw, and wind.	Cultivated fields, especially corn, and small grain.
Mustard, wild mustard charlock (*Brassica arvensis*), A.	Yellow; ½ inch; racemes.	Maine to Washington.	Grain, grass, clover and rapeseeds.	Small-grain fields and meadows; grains.
Nut-grass, coco (*Cyperus rotundus*), P.	Brown; 1-16 inch; spikelets.	Maryland to Florida and Texas.	Wind, nursery stock, hay, and grass seed; tubers.	All soils; hoed crops.
Penny cress, French weed (*Thlapsi arvense*), A.	White; ⅛ inch; racemes.	North Dakota and Minnesota.	Wind	Grain fields and pastures; grain and dairy products.
Pigweed, redroot, careless weed (*Amaranthus retroflexus*), A.	Green; quite small; spikes in panicles.	Entire United States.	In grain and grass seeds; plants blown by wind.	Plowed land; hoed crops.
Plantain, buckhorn, rib grass (*Plantago lanceolata*), P.	White; 1-16 inch; spike	.... do	Hay, clover, and grass seed; spreads but slowly from a crown.	Everywhere; meadows, pastures, and lawns.
Poison ivy, poison oak (*Rhus toxicodendron*) P.	Greenish white; ⅛ inch; panicles.	Entire United States.	Does not spread fast by seeds; running rootstocks.	Moist rich land, along fences; poisonous by contact.
Purslane, pusley (*Portulaca oleracea*), A.	Yellow; ¼ inch; solitary.	.... do	Tillage implements; has a long seeding period.	Rich cultivated land, especially gardens; hoed crops.
Quack-grass, witch-grass (*Agropyron repens*), P.	Green; spike	Maine to Pennsylvania and Minnesota.	Seeds of grain and coarse grasses; creeping rootstocks.	All crops on the better soils; hoed crops.
Ragweed, smaller ragweed (*Ambrosia elatior*), A.	Yellow; ¼ inch; small heads on spikes.	Entire United States.	Wind carrying matured plants; in grain and red-clover seeds.	Everywhere, especially grain stubble; hoed crops and young grass seeding.
Russian thistle, tumble weed (*Salsola pestifer*), A.	Purplish; ¼ inch; solitary.	Minnesota to Washington and southward.	Wind rolling matured plants.	Everywhere; small-grain and hoed crops.
St. John's-wort (*Hypericum perforatum*), P.	Yellow; ¾ inch; cymes.	Maine to North Carolina and Iowa.	In hay and grass seed; rootstocks.	Meadows, pastures, and waste places.

Common name, botanical name, and duration of life.	Color, size and arrangement of flowers.	Sections where injurious.	Method of seed distribution; vegetative propagation of the perennials.	Place of growth and products injured.
Smartweed (*Polygonum pennsylranienm*), A.	Light rose; 1-16 inch; racemes.	Maine to Minnesota, Florida, and Texas.	Wind carrying matured plants.	Moist, rich soils; hoed crops and young grass seedings.
Smartweed, marsh smartweed, devil's shoestring (*Polygonum muhlenbergii*), A.	Rose color; 1-16 inch; spikes.	Indiana to Iowa.	Wind and farm machinery; rootstocks.	Wet land, prairie, and muck soils; hoed crops, hay, pasture.
Sorrel, sheep sorrel, horse sorrel (*Rumex acetosella*), P.	Red; ⅛ inch; panicles.	Entire United States.	In clover seed; creeping roots.	Meadows and pastures.
Sow thistle, perennial sow thistle, field sow thistle (*Sonchus arrensis*), P.	Yellow; ¾ inch; heads.	Maine to Minnesota.	Wind; running rootstocks.	Grain fields and hoed crops.
Squirreltail grass, squirrel grass, foxtail, wild barley (*Hordeum jubatum*), A.	Green; spike with long bristly glumes.	Minnesota to Texas and California.	Hay, animals, wind.	Meadows and pastures; barbed seeds produce sores on live stock.
Thistle, Canada thistle (*Cirsium arrense*), P.	Purple; ¾ inch; heads.	Maine to Pennsylvania and Washington.	Wind, in hay and straw and in clover and grass seed; creeping roots.	All crops.
Thistle, common thistle, bull thistle (*Cirsium lanceolatum*), B.	Reddish purple; 1 inch; heads.	Maine to Virginia and Washington.	Wind, in alfalfa, clover, and grass seeds.	Pastures, meadows, and winter wheat.
Wild carrot (*Daucus carola*), B.	White; very small; umbels.	Maine and Virginia to the Mississippi.	In foreign clover and Alfalfa seed; carried by animals and wind.	Meadows and pastures.
Wild oats (*Arena fatua*), A.	Green; panicles; similar to oats.	Wisconsin to Washington.	In seed oats.	Oat fields; lawns injurious to stock.
Wild onion, garlic (*Allium vineale*), P.	Flowers rare; umbels with bulblets.	Rhode Island to Georgia and west to Missouri.	Seeds rare; bulblets carried in wheat; underground bulbs.	Everywhere; wheat and dairy products.
Winter cress, yellow rocket (*Barbarea vulgaris*), P.	Yellow; ¼ inch; racemes.	Maine to Virginia and westward.	In grain, clover, and grass seeds.	Grain fields, pastures, and meadows.

EFFECTS OF THE PAST WINTER ON EVERGREENS

Considering what an exceptionally mild winter the one just passed has been, the damage done to evergreens in the vicinity of Philadelphia, is rather unusual. In numerous instances, well established plants of *Retinispora plumosa* and varieties, *Thuya occidentalis* were entirely killed out.

Rhododendrons suffered very much, where they were exposed, and of course all the tenderer kinds of evergreens, but after observing the effects of last winter, one begins to wonder if it is not time to revise opinions as to the hardiness of the different kinds, for instance *Retinispora squarrosa* seems to have stood better than some supposedly hardier.

The Junipers all stood the winter well, as did *Retinispora obtusa* varieties.

From observations, it does seem, however, as if winter injury was from wind rather than cold, as it was noticeable those plants suffered most that were most exposed to it. The outside plants often being seared and brown while another of the same variety, only a few feet away, would be uninjured.

Then again the least damage was done to those kinds that are native to the dryer regions, and the most damage to those that thrive best under humid conditions.

The conclusion the writer came to after observing the damage in many localities and exposures, is that it was done in a very short period when the conditions of sun, frost and wind were just right, or rather "just wrong" from the horticulturist's point of view.

GARDENING

I do not like to dig and till the garden—it's too hard a chore; I'd rather take a dollar bill and buy my onions at the store. When first the vernal breezes blow, men feel desire to hew the soil, and with their spades and rakes they go, and sing and chortle as they toil. But vernal breezes soon expire; the sizzling wind of summer blows, and sets the toiler's beard afire, and tans his neck and bakes his nose. And as he sweats 'neath burning skies, and gives the noxious weeds a whack, a million ants and bugs and flies crawl up his legs and bite his back. And then he hates his sawed-off farm, he growls enough for seven gents; his cauliflowers lose all their charm, his string beans look like twenty cents. Oh, I have gardened in the past, and know the fervor born of spring glows bright a while, but does not last; it is an evanescent thing. I do not like the rake and hoe, I will not ply them any more; when I want turnips I will go and buy the blamed things at the store. WALT MASON.

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This New England soil and climate produce fine sturdy shrubs. Special trade prices. By the thousands, hardy Native and Hybrid Rhododendrons—transplanted and acclimated. Send your lists, let us est.

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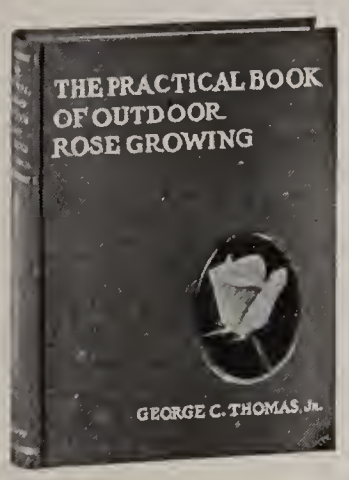
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JUNE 1916

Published Monthly at Hatboro, Penna., U. S. A., in behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General

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Established 1847.

Offers a Fine Stock of

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We are prepared to book early orders at low Prices: quality and grades guaranteed. All Seedlings grown on new land.

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Apple Grafts, French Fruit Tree Stocks, Japan Pear Seedlings. Ornamental Shrubs and Deciduous Seedlings.

Always pleased to quote prices.

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FALL 1916

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Grapes
Rhubarb, Myatt's Linnaeus, Pure Stock
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Catalpa Bungei
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Monroe, Michigan

Extra Fine Peach and Pear Trees

For Sale to the Trade

We Will Need

Some Apples
Some Grapes
Some Berries
Some Currants

The Greening Nursery Co.

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High Grade Northern Grown Stock.

FOR THE FALL OF 1916

A Large Stock of

APPLE, one, two and three year.

CHERRY, one and two year.

PEAR, one, two and three year.

PLUM, one and two year.

Will have 200,000 2-year CHERRY that promise to be very fine.

Also a large stock of Elm, Norway, Sugar and Soft Maple, Catalpa Bungei and a general assortment of other ornamental trees, shrubs, Hedge Plants, perennials, small fruits, etc.

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Boxwood (bushes, pyramids, standards, ball-shape, etc.) Roses, Tree Roses, Azaleas, Magnolias, Rhododendrons, Koster Blue Spruce, Evergreens, etc. Fall or Spring shipment from **Schaum & Von Tol, Boskoop, Holland.**

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Norway and Schwedler Maples, Tilias, Oaks, Elms, Chestnuts, Planes, Thorns, etc. Straight stems, good roots, careful selection. Fall or Spring shipment from **Union Nurseries, Oudenbosch, Holland.**

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Full list of varieties, also Aquatics, Rock Plants, etc.; low prices. Fall or Spring shipments from **Royal Tottenham Nurseries, Dedemsvaart, Holland.**

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MANETTI, Gooseberries (Whinham Industry, Whitesmith, Keepsake, Crown Bob, etc.), 2 and 3 years. Fall or Spring shipment from **John Palmer & Son, Annan, Scotland.**

BAY TREES from Belgium. All sizes, hardy Lilies from Japan, all varieties.

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Shipping. We have our own Custom House department, with shipping connections at all shipping ports. We attend to the procuring of permits and all formalities.

McHutchison & Co., The Import House

17 Murray St., New York

FAIR LADY PROSPERITY KNOCKS AT YOUR DOOR

THERE is more money in the country this year than ever before. Farmers have received fair prices; manufacturers have sold their goods at a profit; the wage-earner has had a full envelope.

More people are interested in planting their home-grounds, for they have learned that shrubs and trees make their places worth more in cold cash, besides adding to the comforts and pleasures of life and improving the community.

Acute factory managers are awake to the fact that pleasant surroundings make happier and more efficient workmen. Farmers who watch the markets know that fruit-growing gives a steady income, and each year the wise ones are turning up the sod with plow or powder and planting an orchard.

A Part of this Trade Belongs to You

This year Prosperity knocks at the nurseryman's office-door. Are you going to get up and let her in, or "watchfully wait" for another year?

You *can* get a fair share of this business, if you go after it with aggressive advertising that is planned to reach the "first-time" planter as well as keep in touch with the man who intends to increase his planting. We know the mediums that should produce results for you; we know how to prepare the copy for the newspaper, the magazine, the catalogue, and follow-up. Our trained organization plans and produces the essentials of a complete campaign.

Let Us Help You Get Your Share

We have proved that the methods of The McFarland Publicity Service have produced more business for a given sum invested than has been obtained by ordinary means. We can do things for *you* too; but we ought to begin soon, for it takes time to plan a successful advertising campaign. Write us, sending copies of your former advertisements, catalogues, and follow-ups. Tell us the amount you have expended annually (confidentially, of course). We will submit a plan involving no greater investment, but which we believe will yield large immediate returns and an increased number of prospects.

Badge No. 7 { J. HORACE McFARLAND
E. FRED ROWE

THE McFARLAND PUBLICITY SERVICE
HARRISBURG, PA.

WHAT ARE YOU DOING ABOUT YOUR NEW CATALOG?

THE conditions in the paper and color markets are serious: certain grades of printing-paper cannot be obtained, others can be secured only with difficulty and at greatly increased prices. Many of the important colors used in printing-inks are absolutely out of the trade. Other items that enter into the making of catalogues have almost disappeared from the market, with the usual result of a price advance that means a corresponding increase to the buyer of printed matter.

Added to these difficulties is another: orders for paper and colors *may* be accepted, but without a delivery date. In effect, the manufacturers say: "Pay our price, and take the goods when you can get them."

This is the situation that confronts the *ordinary* printer. He hasn't been in a position to anticipate the needs of his customers—and those who want to be his customers.

¶ Long ago we saw what was coming; we looked ahead and made arrangements to give our customers the same good and prompt service that has always characterized our organization. We can take care of our regular customers, and will make every effort to care for others who will get in touch with us at once.

Just go back in a corner, by yourself, and talk over the situation like this: "Let's see. Paper has been going up and is going yet; those fellows across the pond have 'raised Cain' with the ink business; engravings cost more; type metal is going—Oh, what's the use? I'll see McFarland at the Convention and arrange with him to make my 1917 catalogue. I *know* that I will be sure of getting what I want just when I want it."

If you want distinctive printed matter during the coming year, we shall be able to take care of your needs, but suggest that you see the McFarland representative at the Convention in Milwaukee or Chicago; or, better still, write us today.

Badge No. 8 { J. HORACE McFARLAND
O. P. BECKLEY

J. HORACE McFARLAND COMPANY

HARRISBURG, PA.

PAINESVILLE NURSERIES

The First Days of Summer



furnish many of the most thrilling and effective advertisements for future nursery trade.

They carry samples of our choicest goods directly to the attention and hearts of the people, and nature pays the freight

As one of the largest American Nurseries, our stock is boosting the business right now, in every nook and precinct of the country.

Did we,--do we,-- or may we have the privilege of co-operation with you in the business end of the great June show?

THE STORRS & HARRISON CO.

ESTABLISHED 1854 **PAINESVILLE, OHIO.** 1200 ACRES 45 GREENHOUSES

Jackson & Perkins Company

Growers of the "Preferred Stock,"—the "Made in American" kind, which is right here *where* you want it, *when* you want it and *as* you want it.

Newark, - - New York

For 1916-1917 we have the largest stocks that we have ever grown, including good supplies of the usual "J. & P." specialties.

In Ornamentals:

ROSES, field-grown
TREE-FORM HYDRANGEAS
CLEMATIS
(Largest stocks in America)
TREE-FORM LILACS
AMPELOPSIS VEITCHII
DUTCHMANS PIPE
(Not hyphenated. Born and raised here)
SHRUBS
(Extra fine stock)
PERENNIAL PLANTS
(Large assortment)
SHADE TREES

In Fruits:

APPLES
PEARS
PLUMS
PEACHES
QUINCES
(None finer grown)
CURRANTS
GOOSEBERRIES

Jackson & Perkins Company

Newark, - - New York

☞ We sell *to the trade only.* We do not compete with our own customers by selling to planters.

Heikes—Huntsville—Trees



Huntsville Wholesale Nurseries

Huntsville, Ala.

MILTON MOSS, Prop.

We offer for Fall of 1916 in large quantities as usual:

Alabama's
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Choice
orrect
arefully
Product
rices
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Apple
pricot
belia Grandiflora

Cherry
ompass--Cherry--Plum

Peach
ear
lum
ecan seedlings
rivet

ROSES: Budded H. P's. One of our specialties. We grow them by the hundredthousands.

SUNDRY ORNAMENTALS

Send us your orders and inquiries

See Price List for Particulars.

HUNTSVILLE WHOLESALE NURSERIES

HUNTSVILLE, ALA.

Hill's Evergreens

You can work up a good profitable trade in Evergreens if you have the right kind of stock. Our main specialty for over half a century has been the propagation of young Evergreen stock for the wholesale trade in immense quantities at low prices.

We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

YOU want to keep posted on Evergreens;
WE want to become better acquainted with you;
Let's get together.

The D. HILL Nursery Co., Inc.

Evergreen Specialists

LARGEST GROWERS IN AMERICA.

Box 401 - Dundee, Ill.

FOR ALL 1916

The following contracted stock is offered to the trade:

CLEMATIS, Large-flowering Varieties.
ROSES, field-grown, Own-roots and Budded.
AMPELOPSIS VEITCHII, 2 and 3 Years.
RED-FLOWERING DOGWOOD.
C. L. W. BIRCH.
PERFECTION CURRANTS.
ST. REGIS RASPBERRY.
SHRUBS in General Assortment.
FRUIT TREES.

All carefully grown, well-graded, properly packed; prices right; no big "overhead," no traveling; no expensive staff; just me and the type-writer!

French Stocks and Seedlings

Sold for Mr. F. Delaunay, Angers, France; reference gladly made to any of those who ordered through me last season, for information as to quality, grading and packing; importing expense bills cheerfully offered to show what the service costs.

Let us talk it over at the Milwaukee Convention.

JOHN WATSON,

Wholesaler — Jobber — Importer.

NEWARK, - NEW YORK

June 1, 1916.



Season very late.

Strawberry plants in good condition for shipping now. All orders filled the day received, or day following.

We Are Headquarters for Everything That is Best in STRAWBERRIES.

Let us hear from you.

Our Strawberry Plants

as fine as ever grew. We have them on our own grounds: (fresh new land). Plants strong, vigorous, and healthy with an abundance of fibrous roots. And every plant guaranteed true to name. No better anywhere, at any price. And *our plants are hardy everywhere,* where strawberries are grown.

No order too big for us to handle with ease. Small orders receive the same careful attention, that we give the larger ones.

100,000	Abington	50,000	Ewell's Early	100,000	Lady Thompson	1,500,000	Rewastico
200,000	Amanda	100,000	Fendall	100,000	Lea	1,000,000	Sample
200,000	Aroma	50,000	First Quality	150,000	Longfellow	50,000	Saunders
200,000	Brandywine	500,000	Gandy	500,000	McAlpin	1,500,000	Senator Dunlap
300,000	Bubach	1,000,000	Glen Mary	100,000	Marshall	150,000	Sharpless
1,000,000	Big Joe	50,000	Gold Dollar	50,000	Mascot	100,000	Somerset
2,000,000	Chesapeake	100,000	Grand Marie	800,000	Missionary	100,000	Superb
100,000	Climax	400,000	Haverland	100,000	Mitchell's Early	200,000	Tenn Prolific
500,000	Early Ozark	50,000	Heritage	100,000	New York	100,000	Three W's
50,000	Early Jersey Giant	100,000	Hustler	100,000	Ohio Boy	200,000	Twilley
50,000	Edmund Wilson	100,000	Kellogg's Prize	100,000	Orem	1,000,000	Warfield
100,000	Ekey	1,000,000	Klondyke	200,000	Parson's Beauty	25,000	Wilson
50,000	Excelsior	100,000	Lady Corneille	100,000	Paul Jones	200,000	Winner
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Send US Your List

The W. F. ALLEN CO.

100 Market Street

Salisbury, - - Maryland

All plants tied 25 to the bunch and every bunch labeled.

Shrubs.

The growing season with us this year has been wonderful. Plenty of rain and heat, and this, with the necessary cultivation, has produced for us an exceptionally fine lot of shrubs. We offer in large quantities:—

Spiraea Anthony Waterer	Highbush Cranberry
Persian Lilac	Snowball, Common & Jap.
Spiraea Van Houttei	Mock Orange
Kerria, double	Bush Honeysuckle

Also many other trees and shrubs

Japanese Maples.

We call special attention to our Japanese Maples. We have them in a fine assortment of varieties and sizes. Some extra fine, large specimens.

Send for Our Wholesale Trade List

Thomas Meehan & Sons,
Wholesale Nurserymen,
Dresher, Penna.

SPECIMEN EVERGREENS

IMMEDIATE SHIPMENT



Arbor Vitae, American, 3 to 4 feet.
" " " 4 to 5 feet.
" " " 5 to 6 feet.
" " Columbia, 2 to 3 feet.
" " Lutea, 3 feet.
" " Pyramidalis, 3 to 4 feet.
" " " 4 to 5 feet.
" " Tom Thumb, 2 feet.
Juniper Irish, 4 to 5 feet.
" Virginiana Glauca, 3 feet.
" " Sinensis, 2 to 3 feet.
" " " 4 to 5 feet.
Retinispora Filifera, 2 to 2½ feet.
" " Aurea, 15 inches broad.
" Obtusa Nana, 12 to 18 inches.
" Squarrosa, 2 to 3 feet.
Spruce, Kosters, 3 to 4 feet.
Boxwood, Pyramids, 3 to 4 feet.
" Standard
Rhododendrons, choice lot.

W. B. COLE, - - Painesville, Ohio

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APPLE QUINCE PEAR CHERRY
PEACH PLUM

A Fine Block of
Own Root Roses

ORNAMENTAL TREES SHRUBS
BERRIES CLEMATIS
EVERGREENS PEONIES PHLOX
PYRAMIDAL and STANDARD
TREE BOX, 3 to 6 feet

Write for our Special Prices

SPECIAL ATTENTION given to Dealers, complete lists and carload lots.

W. & T. SMITH COMPANY

GENEVA, N. Y.

63 Years 700 Acres

SEEDLING EVERGREENS

BY THE MILLIONS

Arbor Vitae	Jack Pine
Austrian Pine	Norway Spruce
Black Hill Spruce	Pinus Ponderosa
Colo. Blue Spruce	Pitch Pine
Concolor	Red Spruce
Douglas Spruce	Scotch Pine
Engelmanii Spruce	White Pine
European Larch	White Spruce

All sizes. Ask for prices.

SPECIAL QUOTATIONS ON LARGE ORDERS

Also the following **APPLES** in 1-2 in., 5-8 in. and 11-16 in. sizes at special prices:

Ben Davis, Duchess, Florence, Gano, Hibernal, Iowa Beauty, N. W. Greening, Okabena, Patten's Greening, Peerless, Peter, Pewaukee, Scott's Winter, Soulard, Strawberry Crab, Transcendent, University, Virginia, Wealthy, Whitney and Wolf River.

SHERMAN NURSERY COMPANY

CHARLES CITY, IOWA

The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

Stark Bros. Nursery & Orchards Co.
LOUISIANA, MO.



P. D. Berry, Wholesale Nurseryman, is offering for Fall 1916

In Storage, can ship any time

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, California Privets, Barberry THUNBERGII, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

Quotations furnished by letter.

P. D. BERRY,

Dayton, - Ohio

THE BEST IN NURSERY PRODUCTS

We carry a full line of fruit and ornamental trees, evergreens, shrubs, etc. Send us your list of wants.

Listed below are some real winners. If what you need is not here, write for our trade list.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Magnolia Tripetela, Japan and American Judas, English Walnuts, Japan Walnuts, California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Apples and Peaches, 10,000 Downing Gooseberries, 2 years, No. 1.

HOOPES, BRO. & THOMAS COMPANY
Established 1853 West Chester, Pa.
Maple Avenue Nurseries
Philadelphia Office:
222-3-4-5 Stephen Girard Building 21 South Twelfth Street

August Rolker & Sons

are the sole American Agents for
LEVAVASSEUR & SONS
Ussy and Orleans, France
Wholesale Growers and Exporters of
Fruit and Ornamental Stocks, Evergreens, Herbaceous plants, Roses, Manetti, etc. Largest shippers to America.

M. GIELEN NURSERIES,
Oudenbosch, Holland.
Extensive growers of FOREST, AVENUE, and ORNAMENTAL Trees and Shrubs, Evergreens, HARDY ROSES, Etc.

W. KEESSEN Jr. & ZONEN,
Terra Nova Nurseries, Aalsmeer, Holland
SPECIALISTS IN BOXWOOD of all shapes, also TOPIARY clipped forms, MAGNOLIAS, hardy AZALEAS, RHODODENDRONS, Etc.

IMPORT ORDERS for FALL DELIVERY
are booked now for BULBS from JAPAN, HOLLAND, FRANCE; BAY TREES from BELGIUM,
Prime RAFFIA furnished in original bale lots; and other Nursery and Greenhouse Supplies

CUSTOM HOUSE BUSINESS
and reforwarding promptly attended to.
Address for lists and further detail:

P. O. Box 752 New York
or 51 Barclay St.

We keep on hand large supply of Nature, Fruit, Flower, and Shrub

PLATES

We design covers for nursery catalogues and also print inserts in natural colors.

CHRISTY COLOR PRINTING ENGRAVING CO.
Inc.
183 St. Paul St., - Rochester, N. Y.

We are now ready to quote lowest prices on
FRUIT, SHADE AND ORNAMENTAL TREES, SHRUBS, EVERGREENS, VINES and HERBACEOUS PLANTS

FOREST TREE SEEDLINGS we only have in limited supply this season, and would advise placing your orders early.

TREE SEEDS we can supply in limited quantities.

Send list of your requirements for lowest prices. Trade list ready.

The Willadean Nurseries
Sparta, Ky.

Vincennes Nurseries, W. C. REED, Prop.
VINCENNES, - - INDIANA

Leading Specialties for Fall 1916
Cherry, Two Year, extra fine, leading varieties in car lots
Cherry, one year, 11-16 up and smaller grades
Our Blocks of Cherry are perhaps the largest in the country
Std. & Dwf. Pear, Japan Plum, Compass Cherry
Peach, One Year, Car lots or less
Weeping Mulberry and Bungei Catalpa
Hardy Budded Pecans and English Walnuts

WE OFFER

Grape Vines, Currants and Gooseberries
in all varieties and grades
—also—
Grape and Currant Cuttings and Light Grade of Vines for Lining Out in Nursery Rows
WRITE FOR PRICES
F. E. SCHIFFERLI, Fredonia, N. Y.

PEACH FOR DELIVERY
Fall 1916 and Spring 1917

We offer our surplus at close prices for early orders.
MICHIGAN PEACH, carefully grown, perfectly graded.

THE MICHIGAN NURSERY COMPANY
Winkworth and Sons,
Monroe - - Michigan

The Westminster Nursery
J. E. Stoner, Prop.
WESTMINSTER - - - MARYLAND
We offer for Fall 1916 and Spring 1917
500,000 PEACH, 40 Varieties, 1 year buds
CALIFORNIA PRIVET, 1 year and 2 year
ASPARAGUS, 1 and 2 year
SNYDER BLACKBERRY, root cuttings
DOWNING GOOSEBERRY PLANTS, 2 year
HYDRANGEAS, P. G., 2 to 3 feet and up
BARBERRY THUNBERGI, 2 and 3 year transplanted
Can supply the above stock in car load lots or less, also, have a large stock of Rhubarb, Cumberland Raspberry Plants, Spireas, Deutzia Assorted, nice specimen plants. Evergreens, Horse Chestnut, N. Maple, Lombardy Poplar and Planes, etc.
We will make attractive low prices for early orders
SEND LIST OF WANTS

For **FUMIGATION** With
HYDROCYANIC ACID GAS
"CYANEGG"

Sodium Cyanide in egg shape, each egg weighs as near one ounce as possible. Destroys scale insects on Fruit Trees, Nursery Stock, Plants under glass and in Greenhouses.

Manufactured in U. S. A. by
The Roessler & Hasslacher Chemical Co.
100 WILLIAM ST. - NEW YORK, N. Y.

WOOD LABELS

For Nurserymen and Florists
The kind that give satisfaction.

Facilities for the handling of your requisite, combined with the quality of our product is unsurpassed.

Samples and prices are at the command of a communication from you.

Dayton Fruit Tree Label Co.
South Canal St., Dayton, Ohio

ENGLISH NURSERY STOCK

GROWN IN LARGE QUANTITIES

RHODODENDRONS a splendid lot this season, fine bushy plants. Plenty of the hardy Catawbiense named varieties suitable for the American climate including the newer and superior kinds.
AZALEAS, ANDROMEDA, KALMIA and other American plants in great variety.
CONIFERS a large stock, of all hardy kinds.
HARDY ORNAMENTAL, EVERGREEN and DECIDUOUS TREES.
ROSES. Dwarfs and Standards in all varieties.
CLEMATIS AND CLIMBING PLANTS.
FRUIT TREES Espalier trained pyramids in quantity.
MANETTI ROSE STOCKS 1 year splendidly rooted from sandy loam, none better imported.
A general assortment of hardy outdoor stock. Glad to answer inquiries.

THIRTY YEARS SUCCESSFUL TRADING IN THE STATES

No Agents. Write direct for wholesale catalogue to

WALTER CHARLES SLOCOCK, Goldsworth Nurseries, Woking Surrey, England

Half an hours rail from London, London & S. W. Ry., Main Southampton Line. Cable Slocock Woking. (A. B. C. Code).

"We Raise Our Own Trees"

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FOR GROWERS AND DEALERS IN NURSERY STOCK
The National Nurseryman Publishing Co., Incorporated

Vol. XXIV. HATBORO, PENNA., JUNE, 1916. No. 6

The Forty-first Annual Convention of the American Association of Nurserymen.

THE Forty-first Annual Convention of the American Association of Nurserymen will be held June 28th, 29th and 30th in Milwaukee, Wisconsin.

Convention Headquarters will be at Hotel Wisconsin. Rooms for one person, detached bath, $1.00 and up.
Rooms for one person, shower bath, $2.00 and up.
Rooms for one person, with bath, $2.50 and up.
Rooms for two persons, with bath, $4.00 to $6.00.
European plan. Table d'hote meals from 35 cents upward; also lunch room at Cafeteria prices.



Hedge of Spiraea Van Houttei in Washington Park, Milwaukee, Wisconsin. Photograph taken May 31st.

See illustration.

Hotel Wisconsin is a comparatively new hostelry. It is a twelve-story, steel-frame building of modern fireproof construction throughout. There are 500 rooms, 300 of which have private baths. All rooms have windows opening to outside air.

The management has granted the use of the Gold Room for convention purposes, besides other accommodations.

When engaging rooms in advance, which is recom-

mended, members should mention the Association.

ENTERTAINMENT

Mr. T. J. Ferguson has had charge of all arrangements and what of entertainment there will be. There has been a sentiment against spending so much time for this latter feaure to the detriment of business. Doubtless, however, provision will be made for a visit to the parks, seven in number, aggregating 456 acres, and located on the lake shore, the Milwaukee river, and portions of the suburbs. There are many places of interest in Milwaukee, too many for enumeration here.

One enjoyable feature is promised. The Convention Bureau connected with the Merchants' and Manufacturers' Association has arranged to give members and their guests an automobile ride covering all the good roads within Milwaukee county.



E. S. WELCH,
Shenandoah, Iowa,
President,
American Association of Nurserymen.

RAILROAD RATES

Since the passenger associations now require a guarantee in number of certificates much larger than we can furnish, members are advised to confer with their local ticket agent immediately after June first for information regarding round trip and excursion tickets.

Where there are members living along or near to a main railroad, it is suggested that some enthusiastic member make an endeavor to organize a "special car" party. There's lots of fun in it, and oftentimes business profit for all concerned.

EXHIBITS

The space assigned for this popular feature of the convention is more than ample. Intending exhibitors, embracing nurserymen, lithographers, manufacturers of tools, implements or anything else used by the trade, should lose no time in communicating with Mr. Albert F. Meehan, Dresher, Pa., Chairman of Exhibit Committee.

In harmony with the constitutional provision a charge of five cents per square foot for exhibit space will be made, with a minimum of fifty cents for each exhibitor. This is done to enable the committee to meet expenses connected with their work wihout drawing upon Association funds.

For further information, write

JOHN HALL, *Secretary,*
204 Granite Building Rochester, N. Y.



LLOYD C. STARK
Louisiana, Mo.
Chairman of Program Committee
American Association of Nurserymen.

The following is the program arranged by Mr. Lloyd C. Stark subject to revision:—

Program

SECTION 1:

Wednesday, June 28th, 10.00 A. M.

Invocation by Rev. C. S. Harrison, York, Nebraska.

10.10 Address of welcome—Mayor of Milwaukee.

10.30 Response—(10 minutes)
John Watson, Newark, N. Y.

10.40 President's Address—(30 minutes)
E. S. Welch, Pres. A. A. of N., Shenandoah, Iowa.

11.10 Secretary's Report—(15 minutes)
John Hall, Secretary A. A. of N., Rochester, N. Y.

11.25 Treasurer's Report—(10 minutes)
Peter Youngers, Treasurer, Geneva, Nebr.

SECTION 2: (THE NEW ORGANIZATION)

11.35 "A Greater American Association of Nurserymen" (20 minutes) by J. R. Mayhew, Waxahachie, Texas.

11.55 "The Value of Membership in the American Association of Nurserymen" (10 minutes) By Henry Chase, Chase, Alabama.

12.05 "A Practical Business Meeting of Business Nurserymen" (10 minutes) W. H. Wyman, North Abington, Mass.

12.15 Discussion (20 minutes)—
John Dayton — J. B. Pilkington
E. H. Balce — Theodore J. Smith

12.35 Announcement by Entertainment Committee. T. J. Ferguson, Wauwatosa, Wisconsin, Chairman.

12.45 Adjournment.

Afternoon

SECTION 3: (TRADE MATTERS)

EXECUTIVE SESSION—(closed doors, for members only)

1.45 Report of Legislative Committee (30 minutes)
East—Wm. Pitkin, Rochester, N. Y.
West—Peter Youngers, Geneva, Nebr.

2.15 "Review of Work of Counsel for A. A. of N. During the Past Year, and Recommendations for the Future." (20 minutes) Curtis Nye Smith, Counsel A. A. of N., Boston, Mass.

2.35 Discussion (25 minutes)—Lead by
Wm. Pitkin — Peter Youngers
J. W. Hill — Orlando Harrison
Thos. B. Meehan — F. H. Stannard
H. D. Simpson

3.00 Transportation Committee's Report—(15 minutes) Chas. Sizemore, Chairman, Louisiana, Mo.

3.15 Discussions—(15 minutes)
L. A. Berckmans — John Dayton
W. C. Reed — O. Joe Howard

3.30 "Who Shall Receive Trade Prices"—(10 minutes) John Dayton, Painesville, Ohio.

3.40 Discussion—(20 minutes)
T. J. Ferguson — Wm. Pitkin
Guy Bryant — Theodore J. Smith
R. J. Bagby — E. S. Osborne

4.00 "A Safe, Non-warranty Clause for Nurserymen" (10 minutes) Luther A. Breck, Lexington, Mass.

Evening

IMPORTANT:

The State Vice-Presidents meet at 7 p. m. Members from each State are urged to consult together and name their choice for State Vice-President.

7.30 Meeting of American Nurserymen's Protective Association. Thomas B. Meehan, Secretary.

8.30 Meeting of American Retail Nurserymen's Protective Association, Guy A. Bryant, Secretary.

Thursday, June 29th.

SECTION 4: (OVERPRODUCTION PROBLEMS)

EXECUTIVE SESSION—(Closed doors, for members only)

10.00 a. m. "Statistics and Propagation Plans—the Real Remedy for Cut-throat Sales Methods and Big Brush Piles"—(10 minutes) John Watson, Newark, N. Y.

10.10 Discussion—(30 minutes)
C. M. Hobbs — Frederick L. Atkins
J. Edward Moon — John P. Rice
E. W. Chattin

10.40 "Tariff"—Report of the Committee (10 minutes) Irvine Rouse, Chairman, Rochester, N. Y.

10.50 "Are Higher Duties Desirable"—(30 minutes) Discussions by
George C. Perkins — John Dayton
George C. Roeding — Frank Weber
Thomas B. Meehan

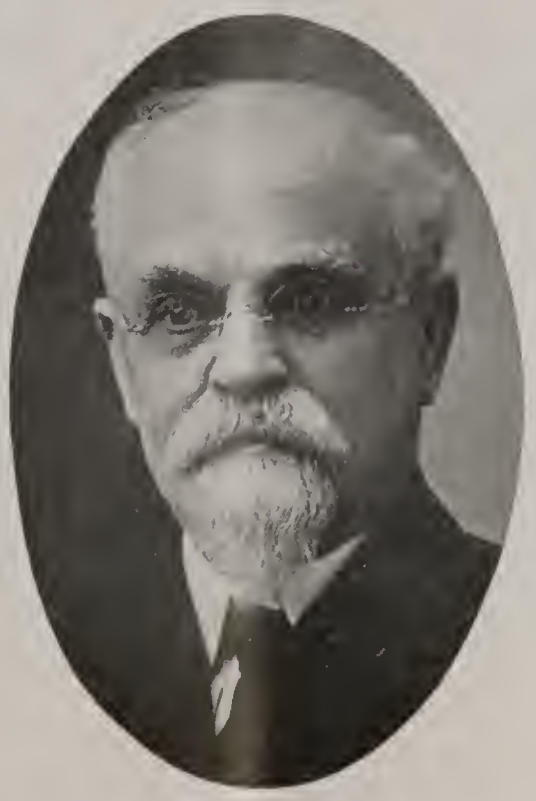
SECTION 5: (PUBLICITY) (OPEN SESSION)

11.20 "Fair Play Nursery Advertising"—(10 minutes) Frank B. White, Managing Director Agricultural Publishers' Association, Chicago, Ill.

11.30 "Cheaper, More Productive Advertising"—(10 minutes) E. H. Favor, Managing Editor Fruit-Grower, St. Joseph, Mo.



JOHN WATSON
Newark, N. Y.
Vice President of the
American Association of Nurserymen.



JOHN HALL
Rochester, N. Y.
Secretary of the
American Association of Nurserymen.



PETER YOUNGERS
Geneva, Nebraska
Treasurer of the
American Association of Nurserymen.

11.40 "Co-operative Nursery Publicity"—(10 minutes)
J. Horace McFarland, Harrisburg, Pa.
11.50 "Practical Publicity Plans for the A. A. of N." (10 minutes) Jefferson Thomas, Jacksonville, Fla.
12.00 Discussion - (30 minutes)
J. R. Mayhew — Henry B. Chase
W. H. Wyman — W. F. Bohlender
Frederick L. Atkins — E. P. Bernardin
12.30 Adjournment.

Afternoon

SECTION 6: (MISCELLANEOUS—ELECTION OFFICERS)

2.50 Report of State Vice-Presidents.
"A Practical Members' Collection Bureau"
Curtis Nye Smith. (followed by general discussion)
3.20 Adjournment.

Friday, June 30th.

SECTION 7: (INSPECTION MATTERS)

9.30 Executive Committee Recommendations on Uniform Trade Terms for Members of the American Association of Nurserymen.—(10 minutes)
Henry B. Chase, Member of the Executive Committee.
9.40 Discussion—(10 minutes)



View in one of the parks, Milwaukee, Wisconsin.

1.30 "A Practical Cost System for Nurserymen"—(20 minutes) Hugo Kuechenmeister, Farm Management Department of the University of Wisconsin.
1.50 Discussion (30 minutes)
C. A. Krill, Kalamazoo, Mich.
C. C. Mayhew, Sherman, Texas
John Watson, Newark, N. Y.
C. J. Maloy, Rochester, N. Y.
A. F. Meehan, Dresher, Pa.
2.20 "Proper and Uniform Bunching, Packing and Handling of Nursery Stock"—(10 minutes)
Herbert Chase, Delta, Colo.
2.30 Discussion—(20 minutes)
D. S. Lake — W. T. Hood, Richmond, Va.
T. O. Ilgenfritz — W. J. Maloney
John Dayton — Thos. B. Meehan
J. W. Hill — H. D. Simpson
Milton Moss
9.50 "Present Status of the Uniform Horticultural Inspection Bill"—Prof. J. G. Sanders, Entomologist and Chief Nursery Inspector, University of Wisconsin, Madison, Wis. (10 minutes).
10.00 "Co-operation with the Entomologists"—(10 minutes) L. A. Berekmans, Augusta, Ga.
10.10 "White Pine Blister Rust Quarantine"—(10 minutes) Prof. F. L. Washburn, State Entomologist, St. Anthony Park, Minn.
10.20 Discussion—(30 minutes)
Wm. Pitkin — Thos. B. Meehan
Peter Youngers — Theo. J. Smith

Curtis Nye Smith — Prof. J. G. Sanders
M. R. Cashman — Geo. A. Marshall
Prof. E. Lee Worsham, State Entomologist, Atlanta, Ga.

SECTION 8: (MISCELLANEOUS)

10.50 Report of Nomenclature Committee (10 minutes)
J. Horace McFarland, Chairman.
Harlan P. Kelsey

11.00 "Accepted Horticultural Names —Will Arbitrarily Adopted Names Supersede those in Common Use?" —(10 minutes) Prof. L. H. Bailey, Ithaca, N. Y.

11.10 Discussion—(20 minutes)
Prof. E. R. Lake — John Dayton
D. S. Lake — W. W. Hoopes

11.30 Report of the Committee on Root Gall—(10 minutes) E. A. Smith

11.40 Question Box, lead by (20 minutes)
J. W. Hill, Des Moines, Iowa

12.00 Unfinished Business.
Resolutions
Adjournment.

JOINT COMMITTEE ON NOMENCLATURE

The Committee on Nomenclature has joined itself with a similar committee of the Ornamental Growers Association, and under the vigorous attention of the secretary and several members an important meeting has been held and progress instituted.

As the work opened out before the Committee, it has appeared that the standardizing of horticultural names, especially of horticultural common names, would tend strongly toward making buying easier, and therefore toward making business better.

It has been thought that inasmuch as the Federal Agricultural Department has done wonderful things for the farmers of the land, it was not unfair to have the same Department do just a little bit for the nurserymen of the land. We found that the office of the Bureau of Plant Industry was very favorable toward helping the detail work required, but had no money.

Getting federal co-operation, which means better and quicker work and without calling upon each nurseryman for a special contribution, therefore depends on a federal appropriation additional to that already provided for the Department of Agriculture. Senator J. W. Wadsworth, of New York, has introduced H. R. 12717, which provides that $3,000 shall be appropriated, in addition to other sums for other work, in order that the Department will have funds to go on with this matter of getting us uniform and usable common and scientific names.

The Committee has gotten this proposition as far as it can. It is now up to the nurserymen to get it through. You have a congressman and two senators who will respect a letter from you because you are a voting constituent. We ask you, therefore, to write that letter at once, urging immediate and favorable action upon Senator Wadsworth's amendment to the Agricultural Appropriation Bill, H. R. 12717. Also write Senator Wadsworth.

Get busy; get busy promptly; get busy vigorously, and you will secure a little plain justice for the nurserymen and a large amount of good help toward better business.

Yours truly,
J. HORACE MCFARLAND, *Chairman.*
HARLAN P. KELSEY, *Secretary.*



J. R. MAYHEW
Waxahackie, Texas
Chairman of Publicity Committee
American Association of Nurserymen.



ALBERT F. MEEHAN
Dresher, Pa.
Chairman Exhibits Committee of the
American Association of Nurserymen.



T. J. FERGUSON
Wauwatosa, Wis.
Chairman of Arrangements
and Entertainment Committee
American Association of Nurserymen.

Azaleas and Rhododendrons Worth Planting

By C. W. J. Ottolander, F. & F. Nurseries, Springfield, N. J.

TAKEN in general Azalea's are not very adaptable in this country especially *Azalea mollis* and *pontica.* They are very attractive but do not stand up very well, soil and climatic conditions don't seem to agree with them, unless special pains are taken in selecting a protected spot, supplying the plants with plenty of humus to insure constant moisture at the root. Fresh manure should never be used when planting them.

Azalea mollis is the most attractive one, on account of the large brilliant flowers, but somehow I like Azalea pontica better, they are a more refined group. The flowers appear when the leaves come on the plants. The flowers are well shaped, beautifully colored and quite fragrant. The finest planting I have ever seen of these plants is on the Hunnewell Estate, near Boston, a large group of large plants up to 8 feet high is growing in a well chosen spot between big Pines and Hemlocks, which serve as a background and set off the brilliant coloring to great advantage. When I saw them it was morning, the sun seemed as being reflected several times by the brilliant colors, while the soft green background made them all the more attractive.

The following kinds are my favorites and have been found to be about the hardiest, though there are quite a number of varieties which are nearly as good.

Sang de Gandbruges, blood-red, brilliant color.
Byou de Gandbruges, soft red.
Bouquet de Fleurs, salmon pink.
Raphael de Smet, double pink, light color.
Daviesi, nearly white, large flower.
August Mechelynk, pink.
Nancy Waterer, a copper yellow, large flower, very attractive.

The large flowers of *Azalea mollis* are as said before, very attractive and make this group in great demand. Regarding the selection of soil and location to them applies the same as to the *Azalea pontica,* though they are stronger and will not suffer so much from the winter. The seedlings give us a very choice lot of flowers, ranging in color from white, yellow, pink and red, into intermediate shadings.

The best red and yellow, named kinds is the J. C. Van Tol, which comes in both colors and is decidedly superior, the flowers being very large.

A cross between *Azalea mollis* and *Azalea sinensis* has produced several varieties, one of the best of them being *Azalea mollis X sinensis,* Anthony Koster, a brilliant orange yellow, large flower a decided acquisition worth planting. These are all distinguishable from the ordinary *Azalea mollis* by the deep orange markings in the throat of the flower, all of them are very readily forced, which makes them a desirable plant for the florist trade also.

The Japan Azaleas, the best of which is *Azalea Hano-di-giri,* offer a large field for experimenting. Hano-di-giri is the most attractive so far and has proven to be the most hardy, though it does not stand up very well. The scarlet mass of flowers produced in May make it a most desirable plant.

Azalea Yodogama and *Indica alba* are two kinds which should be planted, the first is of a fine delicate shade of lilac, while the latter produces large white flowers, neither of them is evergreen, however.

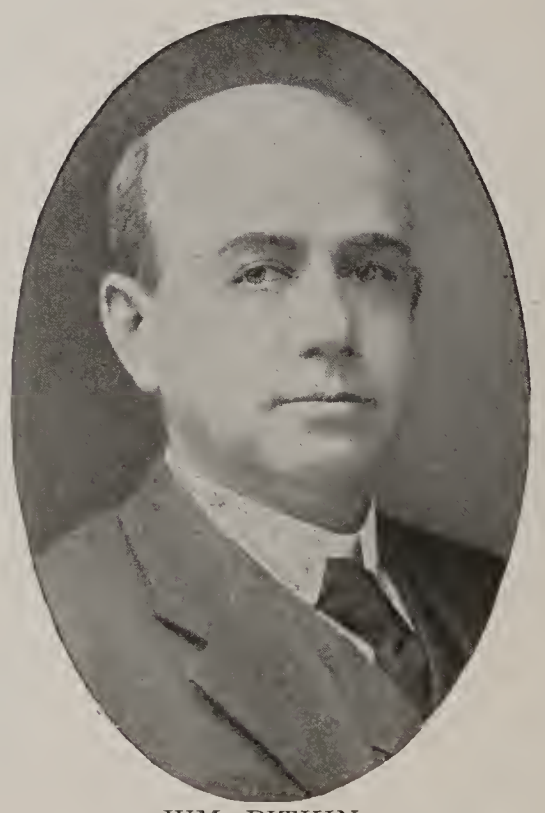
Azalea or *Rhododendron Kaempferi,* is one of the newer kinds, perfectly hardy, as can be seen in the Arnold arboretum where big specimen plants can be seen in full flower. It is very free flowering, with soft pink flowers, foliage not very large, but attractive shining green, nearly adhering to the plants in the winter, makes this kind one of the coming varieties, worth introducing to the public, it will certainly compete with the popular-



CHAS. M. SIZEMORE
Louisiana, Mo.
Chairman Transportation Committee
American Association of Nurserymen.



J. H. DAYTON
Painesville, Ohio
Chairman of the Finance Committee
American Association of Nurserymen.



WM. PITKIN
Rochester, N. Y.
Chairman of Legislative Committee
East of Mississippi River
American Association of Nurserymen.

ity of Hano-di-giri, as soon as it is better known.

Among the hardy Rhododendrons there is a large choice in color and variety, some are less hardy than others, depending to a great extent upon the location of planting and treatment. Like the Azaleas they prefer a sheltered position, somewhat shaded, though not full shade, they like a loamy soil, not too heavy and well supplied with humus, though a good application of cow manure, mulch, every fall is very beneficial to them and in that respect they differ from Azaleas.

A good many kinds are being imported each year, from Holland and England, the latter are somewhat hardier in texture, being grown more under conditions similar to our own, but usually the assortment, while good in color, does not comprise the later hardier kinds originated in Parson's Nurseries.

It is in whites that we are somewhat short among the hybrids. The best known whites are Album elegans, Candidissima, Catawbiense alba and Delicatissima. These are considered white, but all come out somewhat shaded with a blush color, which often calls for remarks from the purchasers. Boule de Neige, which is an old variety of dwarf habit, is of the best white known, but it can only be used as a border plant on account of its dwarf habit. It is a fine variety however, perfectly hardy. Glennianum is another pretty good kind, although its foliage is not so attractive. From all accounts Mrs. Henry S. Hunnewell is the best white yet, but I am not very familiar with it as yet and don't want to include this in my selection, until I know more about it.

In the real pinks we are also somewhat handicapped, though there are some good kinds being grown now. The best known are Lady Armstrong, which is the best of the older kinds, Roseum elegans, which is a strong grower, buds well and has fine foliage, but the color is somewhat on the purple pink, Roseum luteum is much clearer. The better varieties are quite scarce yet and can only be had in small sizes. The best are F. L. Ames, a pronounced pink and white, Henriette Sargent and Mrs. C. S. Sargent being about the best as far as I know them. These are all clear pinks.

The red varieties are better represented and while a number of the older kinds are still being planted, they will be discarded sooner or later on account of the purplish red being objectionable to most customers. Caractacus is the best known of this shade, rubra grandiflora coming next, the latter being of much better growing habit and foliage, also being hardier, color clearer, which make it a desirable kind. I will mention the following as being tried out and having found to have answered the requirements of hardy, scarlet reds, mostly good growers, though some of them may lack in strength of foliage, what they gain in color value. Abraham Lincoln, Atro-sanguineum, Charles Dickens, (fine) General Grant, Kettledrum, and Mrs. Millner being the best known. These should be recommended everywhere and are perfectly dependable in severe winters, except in the past one, when not one variety of Rhododendrons came through unhurt, even the native Maximum was winter-killed in places. Henry Probasco should also be mentioned in this collection.



Boating in Washington Park, Milwaukee, Wisconsin.

The least desirable shade is the purple, among which we count the Catawbiense gr. fl. purpureum elegans, Chas. Thorold and Everestianum. All of these are of good growing habit, have good foliage, especially the last kind being the best in that respect and the color of Everestianum is not so pronounced purple as to make it very objectionable, its other qualities make it very desirable indeed.

For rock and border planting we must yet mention the dwarf kinds, which are very attractive and fairly hardy, the best among those are—*Rhododendron ferrugineum*, dark rose; *Rhododendron hirsutum*, lighter in color, *Rhododendron punctatum*, pink; *Rhododendron Wilsoni*, pink.

The National Nurseryman

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Editor .....ERNEST HEMMING, Flourtown, Pa.

The leading trade journal issued for Growers and Dealers in Nursery Stocks of all kinds. It circulates throughout the United States, Canada and Europe.

Official Journal of American Association of Nurserymen

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900

SUBSCRIPTION RATES

One Year in Advance $1.00
Six Months ..... .75
Foreign Subscriptions, in advance $1.50
Six Months $1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested by the Business Manager, Hatboro, Pa.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

Entered in the Post Office at Hatboro, Penna., as second-class matter.

Hatboro, Penna., June, 1916.

THE CONVENTION

Don't be slack about the Convention. Every nurseryman knows what nursery business needs most is close co-operation among its members to insure better prices, better markets and better distribution.

It is needless to point out, because it is potent to all, that those trades in which there is the closest co-operation and systematic control are the ones that are the most successful and progressive.

The selfish policy of "Everyone for himself and the devil take the hindmost" never did bring good results and never will.

The American Association of Nurserymen is the one hope by which the future may be guided and controlled. Do not think because you have a successful business you are under no obligation to your brother nurserymen. You have not a single stick of stock for which you are not in some way indebted to your predecessors, or a method of cultivation or propagation that is not due to painstaking efforts and experiences of others, and to keep right up to the minute you must keep in close touch with what the other fellow is doing and thinking about now.

The Convention is the one annual opportunity for doing this, so do not miss it. If you are not a member become one, and if you do not get full value for your dues there is something wrong with you, but whether you do or don't, you owe the Society your support for the work it is doing on your behalf.

Come to the Convention and if you have a grievance let it be known. If it does not get corrected, it will at least be known and start others thinking.

It is neither possible nor advisable that everyone get up on the floor and address the meeting, but rubbing shoulders and personal interviews all help form public opinion and your being there will put more confidence and backbone into the workers that so unselfishly give so much time and energy for the general good of our business.

CHANGE OF ADDRESS OF THE PUBLISHING OFFICE OF THE NATIONAL NURSERYMAN

From now on the publishing office of The National Nurseryman will be at Hatboro, Montgomery County, Pa., instead of 218 Livingston Building, Rochester, New York. The change will give increased efficiency as it will bring the editing, printing and publishing all together and be an immense saving of time and labor.

With the closing of the Rochester office we wish to give full credit to Miss Martha A. Stoller, who has so ably managed it since the death of the founder of the journal, Charles L. Yates. Miss Stoller came to work for The National Nurseryman ten years ago and upon the sudden death of Mr. Yates took full charge. How well she took hold and carried on the work is well known to all who have had dealings with us. Miss Stoller is resigning her present position to manage a home, and if she succeeds as well, we have not the slightest doubt there is much happiness in store for her. We feel sure that all nurserymen who had business dealings with her, will join us in wishing her much happiness. The wedding is to take place in Rochester on June 15th.

BULLETINS

From Curtis Nye Smith, Council for American Association of Nurserymen.

A mistaken idea exists among some Minnesota nursery stock dealers and florists that they are required by the Minnesota law to purchase their supplies from Minnesota nurseries and not from nurseries or dealers in other states. This impression is epitomized by the prominently displayed paragraph on the letter-head of a Minnesota nurseryman, reading.

"Nurserymen have to furnish their customers with nursery stock from a bona fide inspected Minnesota nursery, according to law, passed by the state legislature at the 1913 session."

If this were true, the provision would clearly be unconstitutional as a discrimination against stock grown in other states (In re Schechter, 63 Fed. Rep. 695; Minn. v Barber, 136 U. S. 313, 322).

The Minnesota Legislature in 1915 amended the law of 1913, section 7, so that the Minnesota dealer or florist can, by filing an affidavit that he will buy and sell only stock duly inspected by an official state inspector, (not necessarily a Minnesota inspector) and filing with the state entomologist a list of all sources of stock, sell his stock freely.

The Federal Horticultural Board, U. S. Department of Agriculture, has just issued (May 15, 1916) Rules & Regulations Governing the importation of nursery stock into the United States effective July 1, 1916 and super-

seding all former Rules. The most important change is the provision that permits to import nursery stock from countries which maintain nursery stock inspection, and permits to import orchids and tree seeds from countries which do not maintain nursery stock inspection, instead of being re-issued each year, will be valid until revoked.

BULLETINS OF INTEREST TO NURSERYMEN

Published by the U. S. D. of A.

Apply Editor and Chief of the Division of Publication

The Rose-Chafer. A Destructive Garden and Vineyard Pest. By F. H. Chittenden, In Charge of Truck-Crop and Stored-Product Insect Investigations, and A. L. Quaintance, In Charge of Deciduous Fruit Insect Investigations. Pp. 8, fig. 4. Contribution from the Bureau of Entomology. Apr. 28, 1916. (Farmers' Bulletin 721).

Describes life history and habits of, and methods of control of this insect.

The Leaf Blister Mite of Pear and Apple. By A. L. Quaintance, In Charge of Deciduous Fruit Insect Investigations. Pp. 6, figs. 4. Contribution from the Bureau of Entomology. Apr. 21, 1916. (Farmers' Bulletin 722).

For general distribution.

The Oyster-Shell Scale and the Scrufy Scale. By A. L. Quaintance, In Charge of Deciduous Fruit Insect Investigations, and E. R. Sasscer, Collaborator. Pp. 16, figs. 3. Contribution from the Bureau of Entomology. Apr. 26, 1916. (Farmers' Bulletin 723).

Of interest to fruit growers generally.

The Terrapin Scale: An Important Insect Enemy of Peach Orchards. By F. L. Simanton, Entomological Assistant, Deciduous Fruit Insect Investigations. Pp. 96, pls. 3, figs. 19. Contribution from the Bureau of Entomology. (Professional Paper). Apr. 22, 1916. (Department Bulletin 351). Price, 15 cents.

Describes life history, habits, enemies of, and methods of control for this insect, with report of investigations had at Mont Alto, Pa., in 1912 and 1913.

LEAF BLOTCH OF HORSE-CHESTNUT

From New York State College of Agriculture at Cornell University.

A bulletin describing the fungous disease known as the horse-chestnut leaf blotch, and giving recommendations for its control, has just been issued by the New York State College of Agriculture at Cornell.

The disease, it is stated, is first indicated by a slight discoloration on the foliage. As the disease advances this discoloration becomes larger and that part of the leaf which it affects appears water-soaked. When the disease is very prevalent the foliage appears in its final stage to have been scorched by fire.

The first infection in the spring is said to come from spores in old dead leaves on the ground. Much damage may be prevented by turning under or burning the dead leaves before the new foliage is developed. To forestall the attacks of the fungus on the new foliage, the college authorities recommend spraying with a lime-sulfur solution, one gallon to fifty gallons of water, or bordeaux mixture; or dusting with a mixture of ninety parts of finely ground sulfur and ten parts of powdered arsenate of lead.

A comparison of results on sprayed and dusted trees leads to the belief that the dust method is the more effective because the mixture floats through the dense foliage and reaches all the leaves in a much more satisfactory manner than the lime-sulfur solution or bordeaux mixture.



J. B. PILKINGTON
Portland, Oregon
Chairman of Executive Committee
American Association of Nurserymen.



L. A. BERCKMANS
Agusta, Georgia
Chairman of the Co-operation with Entomological Committee
American Association of Nurserymen.



E. A. SMITH
Lake City, Minn.
Chairman of the Root Knot Committee
American Association of Nurserymen.

INTERESTING FACTS ABOUT MILWAUKEE

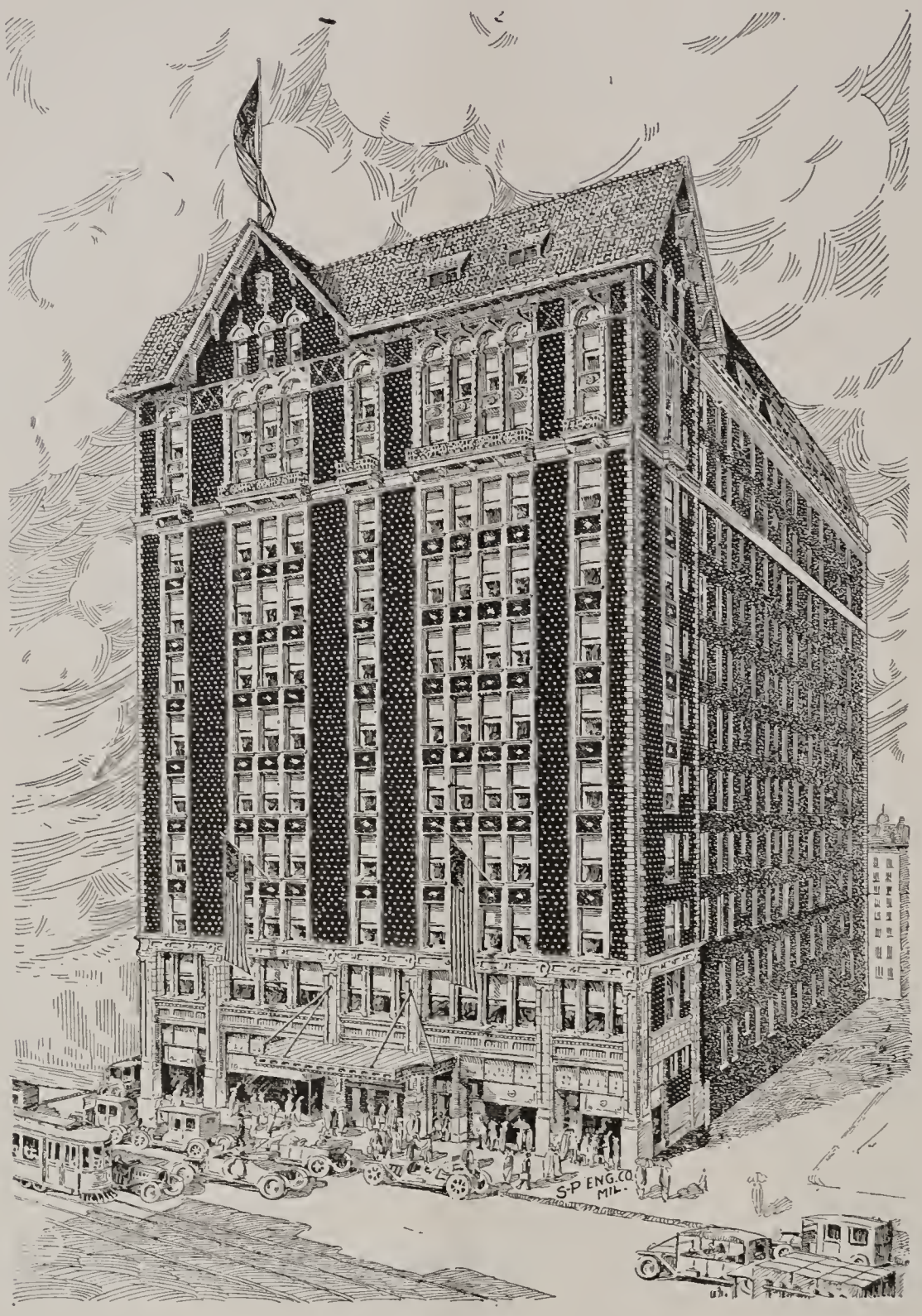
Milwaukee was originally an Indian village. The first white man, Solomon Juneau, a French Canadian, came in 1818. Milwaukee was incorporated as a village in 1837 and as a city in 1846. The same "Milwaukee" or "Mahn-a-wau-kie" means "in the valley." The first white population consisted of Yankees, young men who came from the New England states and New York "to grow up with the West." Then came a foreign immigration of Irish, German and Scandinavian, the German element leading in numbers. These were followed by a large Polish contingent. In more recent years there came an influx of East Austrian, including Slavonions, Servians, Croatians, also Italians, Greeks and Turks.

In 1914 the population was 417,000.

The second largest in the list of manufacturing centers of the United States. A skillful, industrious and peaceful labor constituency. The supply of raw material at convenient proximity; fuel at low rates; the finished product shipped economically to the four ends of the world. The ten leading industries are iron, machinery, packed meats, leather, beer and malt tonics, building, boots and shoes, electric supplies, agricultural implements, railroad equipment, hosiery.

The metropolis of Wisconsin, one of the most resourceful states in the Union. The great receiving and distributing center for the agricultural, lumber, mining and dairy products of the state. Ranks eighth in American cities on exports; fourteenth on imports. The jobbing and wholesale houses have extended their trade from ocean to ocean. The retail stores have assumed magnificent proportions.

Its transportation facilities are unexcelled. It has 36 railroad and steamship outlets. Has largest tonnage of any city on C. M. & St. P. Ry. system of 8,721 mileage; second largest on C. & N. W. Ry. system having 9,663 mileage. Railway belt line now completed. It has the



Hotel Wisconsin, Milwaukee, Wis.
Convention Headquarters of the National Association of Nurserymen

best harbor on the Great Lakes—its bay bears some of the beauties of the Bay of Naples. Total lake tonnage 9,000,000 last year.

The most orderly and law abiding city in the nation, having a smaller percentage of crime and vice than any other. It has the lowest death rate making it the most healthful city in the United States. The standard of its school system is the highest. It maintains a great university, several colleges and is the first American city to maintain a well equipped school of trades in connection with the public schools.

It has an Auditorium costing $1,100,000 inclusive of the square of ground on which it is located far superior to anything of its kind in the country, capable of accommodating the largest national conventions. Has thirty hotels, affording accommodations from plain and simple to the most luxurious. Their location is convenient to business section. Some are located upon elevations overlooking Lake Michigan. Rates are invariably reasonable.

Milwaukee is the most healthful city in the United States. It has the purest drinking water. The smallest death rate of any of the larger cities on the continent. Is essentially the "city of homes." Second to no other city as a place of residence afforded by the elevations which surround the city. The percentage of laboring people who own their homes exceeds that of any other city of the Union. It has no slum or tenement districts.

The park system is the admiration of all visitors. Every section of the city has its own park. Its Zoological Garden is among the finest of the country. Within a few minutes ride Whitefish Bay, the most beautiful resort on Lake Michigan is reached. Within fifty minutes ride the famous Waukesha Springs is reached. Within two hours hundreds of Wisconsin's most beautiful lakes are reached. Trains and suburban cars at all hours.

AMERICAN ASSOCIATION OF NURSERYMEN

Milwaukee Convention

A spirit of true co-operation appears to have laid hold of the members of the American Association of Nurserymen, and the forty-first convention to be held in Milwaukee, June 28th, 29th and 30th, will average in attendance any former gathering of the representatives of the nursery trade. With the adoption of the new constitution at Detroit last year a general revival of determination to place the organization on a higher plane than it has ever before attained was manifest.

At the coming convention a report by Curtis Nye Smith, Boston, Mass., who was appointed counsel of the Association, will consist of a review of his work for the past year and of recommendations for the future; and the various papers to be read will all breathe the same spirit of effort to raise the moral and commercial ethics of the organization. The intention is to make a membership in the American Association a guarantee of all that is honest in the carrying out of contracts, the stock handled, and in general business conduct. The dealer who follows the "gold brick" methods and whose representations either to customers among the public or with his brethren in the trade, is to reform or suffer elimination from the Association.

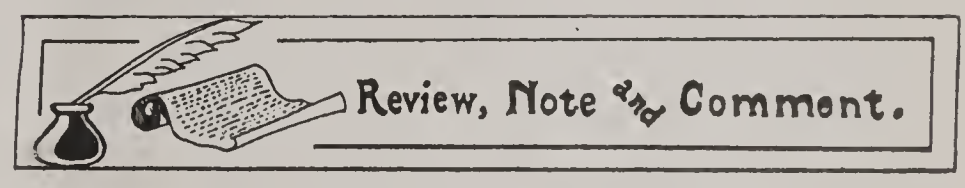
The quality of the program for the Milwaukee meeting, in variety of topics and discussions, surpasses anything ever before presented to the nurserymen, and the sessions will be full of life and profit. The receipts for membership dues are more than double those of any previous year, and the correspondence accompanying renewals indicates satisfaction with the new constitution.

The address of the secretary is John Hall, 204 Granite Building, Rochester, N. Y.

NURSERYMEN'S CONVENTION

Mr. E. S. Osborne, of the Charlton Nursery Company, is endeavoring to arrange for a special train to run out of Rochester to Milwaukee, with the expectation of securing a company of at least one hundred persons. He hopes to arrange for one or more sleepers to leave Boston in ample time to be hitched on to the Nurserymen's Special at Rochester, and which will pick up the different nurserymen east of Rochester.

In this way he hopes to get enough members and their friends to make up the special. Those interested should write Mr. Osborne at No. 448 Cutler Building, Rochester, N. Y.



H. G. Benckhuysen, representing H. den Ouden & Son, Boskoop, Holland, was a visitor at the officer of the National Nurseryman. His address during his visit to the States will be care of Maltus & Ware, 14 Stone street, New York City.

A. Welchert, Proprietor of Cemetery Nursery, Petaluma, California, is going out of business.

J. R. Mayhew, of Waxahachie, Texas, President of The Waxahachie Nursery Co., was operated upon for appendicitis with other complications on May 12th. C. C. Mayhew, his brother, has been with him and reports favorable progress. A telegram May 17th, states he is doing well. His many friends will join with The National Nurseryman in wishing him a complete and speedy recovery.

Holm & Olson, Landscape Architects, St. Paul, Minnesota, report business rushing and a good outlook for the future.

George A. Marshall, of the Arlington Nurseries and Fruit Farm, Arlington, Nebraska, writes that business has been very satisfactory this spring, trade a little better than last year; also that collections have been better, in fact first class, and everything looks promising for the future. Mr. Marshall expects to be at the convention.

According to the daily Commerce Reports of May 5th, among other things, the Board of Trade of London, England, proposes to shortly issue rules restricting the importation of bulbs, flower roots, plants, trees and shrubs into that country. An order in council confirms the above proposal under date of May 10th.

Japanese Flowering Cherries and Other Plants at the Arnold Arboretum

Japanese Cherries. The publication by the Arboretum of an illustrated book on Japanese Cherries by E. H. Wilson greatly increases our knowledge of these plants and will lead, it is believed, to their more general cultivation in this country. Mr. Wilson has recently passed a year in Japan where he was sent by the Arboretum to solve many problems which have long perplexed students of the Japanese flora, and especially to study the character and distribution of the Japanese Cherry-trees and the origin and peculiarities of the numerous forms which are cultivated by the Japanese and which have made Japanese gardens famous. Mr. Wilson succeeded in seeing the ten Japanese species in their native forests and all the principal collections of the garden forms. The introduction into the Arboretum of plants of all the species and of seventy different named garden varieties is one of the results of this journey. Mr. Wilson states in his introduction that, although American and European gardeners have been importing Japanese flowering Cherries for half a century, scarcely one good-sized healthy tree can be found in this country or in Europe. These varieties are double-flowered or otherwise abnormal and therefore can only be propagated by grafting, and a choice of the right stock on which to graft them is important. The plants imported from Japan are all grafted on the variety Mazakura of *Prunus Lannesiana* which is a poor short-lived tree particularly subject to the attacks of scale and boring insects. It is used as stock by the Japanese because it can be quickly and cheaply raised from cuttings. In Europe and the United States one of the European Cherries has been used as stock for the Japanese varieties and on this they have succeeded no better than on the ordinary Japanese stock; and the conclusion which Wilson has reached after a careful study of the subject is that these garden varieties of the Japanese Cherry can only succeed and make large and permanent plants when they are grafted on seedlings of the largest, hardiest and longest lived of the Japanese species. This is the northern tree which has been called *Prunus Sargentii* but now is known to be the northern form of *Prunus serrulata* and is to be called var. *sachalinensis*. During the last year seedlings of this northern tree raised from seeds ripened in the Arboretum have been used here as stock on which the varieties brought home by Wilson from Japan are being grafted, and there is no reason to doubt that the plants produced in this way will grow here to a large size and become as beautiful features in the parks and gardens of America as they are in those of Japan. Five Japanese species produce double-flowering forms. Those derived from the Sargent Cherry, the Yama-sakura or Mountain Cherry of the Japanese, will probably prove most valuable in this climate where they may be expected to grow to a larger size and last longer than the garden varieties of the other species.

In the Arboretum many of the flower-buds of Cherries have been killed during the winter. On

Prunus yedoensis the buds have all been killed. This is a white-and pink-flowered tree and one of the handsomest of the Japanese species. It is this Cherry which has been so largely planted in the streets, parks and cemeteries of Tokyo that when it blooms a general holiday is proclaimed by the Emperor that the public may enjoy its flowers. This Cherry is perfectly hardy in the Arboretum where it has flowered for several years and produced crops of fruit.

Prunus subhirtella. This is the Higan-zakura or Spring Cherry of the Japanese. It is a shrubby plant from ten to fifteen feet high and broad, and is not known as a wild plant, although it is much cultivated in western Japan. Mr. Wilson considers it "the most floriferous and perhaps the most delightful of all Japanese Cherries." This plant was raised in the Arbortum many years ago and from the Arboretum it has been widely distributed in the United States and Europe. For years it has flowered here regularly and has attracted as much attention perhaps as any plant in the Arboretum. The small pink flowers now completely cover the upper branches; those on the lower branches have all been killed no doubt by a lower temperature near the ground than a few feet above it.

Prunus subhirtella, var. pendula has lost, too, many of its flower-buds and the trees in the Arboretum promise to be less beautiful this spring than usual, although in some gardens near Boston this Cherry is now covered with its drooping pink or rose-colored flowers. This weeping Cherry, which has been largely planted in parks, temple grounds and cemeteries in Japan, is nowhere known as a wild tree. It was introduced into Europe and the United States many years ago, and it is now fairly common in the gardens of the northern states. In propagating this tree American and European nurserymen have used as stock one of the European Cherries which are not suitable for the purpose, and such plants are short-lived and generally unsatisfactory. The wild type of this weeping tree and of *Prunus subhirtella* is

Prunus subhirtella var. ascendens, of which there is an excellent picture in Mr. Wilson's book. It is a tall tree with erect spreading branches, and grows in forests in Japan in Shinano Province, and in central China. It has escaped the attention of American and European gardeners, and there are only small seedling plants in the United States. One of these can now be seen with the other forms of *Prunus subhirtella* on the right-hand side of the Forest Hills entrance.

Prunus serrulata var. sachalinensis. The Sargent Cherry for the first time since it began to flower here some years ago has lost some of its flower-buds, especially those on the lower branches. This is the largest and the handsomest of the Cherry trees of eastern Asia, sometimes attaining in northern Japan the height of seventy-five feet and a trunk diameter of four feet. It is one of the trees planted in 1735 in the three mile-long avenue of Cherry-trees at Koganei, near Tokyo, which in early spring is still one of the great sights in Japan.

Hybrid Forsythias. By the path in the rear of the group of Forsythias on the slope at the foot of the Bussey Hill Road are several specimens of forms of the hybrid between *Forsythia suspensa* and *F. viridissima*. The general name of these hybrids is *Forsythia intermedia*,

and there are several distinct forms. The plants are in a sheltered position and their flower-buds have not been injured. The handsomest of them is *F. intermedia spectabilis*, and of all the Forsythias which have been grown in the Arboretum this is perhaps the most beautiful. The flowers are larger than those of either of its parents, deep bright yellow, and are produced this year in countless numbers, completely covering the wide-spreading branches. This plant was probably raised in Germany as it was sent to the Arboretum from the Spath Nursery in Berlin. Other distinct and handsome forms of this hybrid are var. *primulina* and var. *pallida;* the former has pale primrose-colored flowers and appeared as a seedling in the Arboretum a few years ago. The var. *pallida* has pale straw-colored flowers which are of a lighter color than those of other Forsythias. This plant also first came to the Arboretum from Germany. These hybrids are beautiful garden plants, handsomer and perhaps hardier than either of their parents, and they are interesting as showing what may be expected from crossing different species of other trees and shrubs. A good deal has already been done in hybridizing Roses and Rhododendrons. New races of Lilacs, Spiraeas and Philadelphus produced by the skill of the hybridizer already beautify our gardens, but this business is only in its infancy and greater results may be expected from it than have ever yet been obtained.

Amelanchiers are beginning to flower and in a few days the Arboretum will be gay with the white flowers of these trees and shrubs which have been largely planted here along the margins of woods and by the borders of the drives. The species which has been most largely used in this way here is the shrubby *A. oblongifolia*, which grows naturally in the Arboretum where a large native specimen can be seen on the margin of the meadow across the path from the general collection of these plants which occupies the border between the Meadow Road and the parallel grass path on the left-hand side entering from the Jamaica Plain Gate. Another native species, *A. laevis*, is a tree sometimes forty feet high and easily distinguished from all other species by the red color of the unfolding leaves which are destitute of any covering of down. There are some large-sized native trees of this species on the wooded bank in the rear of the Crabapple Collection on the Forest Hills Road. The earliest species in the collection to flower is another tree and perhaps the largest in the whole genus, *A. canadensis*, which is widely distributed from western New York to Louisiana, and the only Amelanchier or Shad Bush in the southern states.

Ribes tenue. This is one of the Currants introduced by Wilson from central and western China, where it is a common plant on the mountains at high altitudes, and a shrub four or five feet high. There are several specimens in the Arboretum, but the handsomest is in the collection of Chinese shrubs on the southern slopes of Bussey Hill. The plant is now covered with short erect clusters of dull yellow flowers which will be followed by bright red, lustrous, juicy fruits. The fruit is sweeter than that of the common red-flowered garden Currant and this plant may prove to be valuable for its fruit, or to cross with the garden Currants. As an early spring-flowering shrub it deserves a place in northern gardens.



Sunken Gardens in Mitchell Park, Milwaukee, Wisconsin.

The yellow-flowered American Currants are still perhaps the most attractive of the Currants and Gooseberries which can be grown in this climate. The better known of these, the so-called Missouri Currant (*Ribes odoratum*) is often cultivated in the United States and is found in many old gardens. It owes its popular name to the fact that it was first found on the upper Missouri River, but it is now known to occur on the great plains from South Dakota to Texas. This plant is often called in books *Ribes aureum*, but this name belongs to a plant with smaller flowers and black or orange-colored fruits. This beautiful plant is rarely cultivated in American gardens. The two plants are growing together in the general Shrub Collection, and the difference in their general appearance and in the structure of the flowers can readily be seen.

Answers to Correspondents



I am well pleased with the "National Nurseryman" will someone through its columns, give me a remedy for raspberry and strawberry anthracnose?

Also a remedy to prevent nursery stock such as apple trees from being girdled by rabbits?

Spraying with Bordeau mixture is perhaps the best preventive of anthraenose for both strawberry and raspberry plants, but if the plantations are badly infeeted it would be better to rotate the crops and plant the ground with something else for a time.

John Weathers in "Commercial Gardening" says:—

"The most eertain way in dealing with diseased strawberry beds, is to mow off the leaves soon after the fruit has been picked, and, when the mown leaves are fairly dry, to eover the whole ground with a sprinkling of straw, litter, or other material that will burn well, and set it on fire. This effectually disposes of not only the diseased spore carrying leaves but all dead fragments. The spring following spray with sulphide of potassium.

The only really effeetive remedy to prevent injury to trees by rabbits, is to get rid of the rabbits, and we are inclined to think this would be as eheap a remedy as any that eould be applied to a large quantity of stock.

Spraying the trunks with fish oil soap is said to prevent rabbits from girdling them.

We should be glad if some of our readers would give their experiences.—*Editor.*

Will some reader who has experienee in such matters kindly advise as to the customary proeeedings when a nursery purchases stock for grafting and budding purposes and later on the stoek is found to be full of Crown Gall and Hairy Root. Is the seller of the stoek liable to the nurseryman for the nurseryman's loss if the entire lot of budded or grafted stock has to be destroyed?

L. B. M.

We enclose herewith our check for $1.00 for which please send us the National Nurseryman for one year. We miss it very badly when we fail to get it.

Yours very truly,

Forest Nursery & Seed Co.

Through the efforts of Curtis Nye Smith, council for the nursery and seed associations there will be less delay in the mails of shipping documents.

The British Government has agreed to allow business doeuments from shippers to and from neutral countries to be placed in a separate bag and to give them precedence over other mail in passing through the hands of the eensor.

PACIFIC COAST ASSOCIATION OF NURSERYMEN

The Exeeutive Committee of The Paeifie Coast Asso-eiation of Nurserymen has fixed the 1916 meeting date of their Association for June 20th, 21st and 22nd at Medford, Oregon. At this year's meeting the program will consist almost exclusively of features pertaining to the business matters of the Association and matters of operating nurseries.

AMERICAN ASSOCIATION OF NURSERYMEN

President—E. S. Welch, Shenandoah, Iowa.
Vice-President—John Watson, Newark, N. Y.
Treasurer—Peter Youngers, Geneva, Neb.
Secretary—John Hall, Rochester, N. Y.
Executive Committee—President, E. S. Welch, Shenandoah, Iowa, Chairman; J. B. Pilkington, Portland, Oregon, one year; Lloyd C. Stark, Louisiana, Mo., one year; J. H. Dayton, Painesville, Ohio, two years; H. B. Chase, Chase, Ala., two years; J. R. Mayhew, Waxamackie, Texas, three years; Theo. Smith, Geneva, New York, three years; Vice-President, John Watson, Newark, N. Y., ex-officio.
Attorney for Association—Curtis Nye Smith, Boston, Mass.

Chairmen of Committees

Transportation—Chas. M. Sizemore, Louisiana, Mo.
Tariff—Irving Rouse, Rochester, N. Y.
Legislation East of Mississippi River—Wm. Pitkin, Rochester, N. Y.
Legislation West of Mississippi River—Peter Youngers, Geneva, Neb.
Co-Operation with Entomologists—L. A. Berckmans, Augusta, Ga.
Program—L. C. Stark, Louisiana, Mo.
Exhibits—Albert F. Meehan, Dresher, Pa.
Arrangements and Entertainment—T. J. Ferguson, Wauwatosa, Wis.
Publicity—J. R. Mayhew, Waxahackie, Texas; L. C. Stark, Louisiana, Mo.
Editing Report—John Hall, Secretary, Rochester, N. Y.
Root Knot—E. A. Smith, Lake City, Minn.
Membership—Will B. Munson, Chairman, Denison, Texas.
Finance—J. H. Dayton, Painesville, Ohio; T. J. Smith, Geneva, N. Y.; John Watson, Newark, N. Y.

STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irvine Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H. W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

Canadian Association of Nurserymen—President, E. D. Smith, Winona; secretary, C. C. R. Morden, Niagara Falls, Ont.

Connecticut Nurseryman's Association—President, Walter E. Campbell, New Haven, Conn.; secretary, F. L. Thomas, Manchester, Conn.

Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Litooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell, Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, F. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, F. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York. Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio; secretary, W. B. Cole, Painesville, Ohio.

Oregon—Washington Association of Nurserymen—President, C. F. Breilhaup, Richland, Wash.; secretary, C. A. Tonneson, Tacoma, Wash.

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Andorra, Philadelphia. Secretary, Henry T. Moon, Morrisville, Penna.

Southern Nurserymen's Association—President, Milton Moss, Huntsville, Ala.; secretary-treasurer, A. I. Smith, Knoxville, Tenn. Next meeting, Hendersonville, N. C.

Tennessee Nurserymen's Association—President, A. I. Smith, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Tennessee State Florists' Association—President, Karl P. Baum, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Deninson, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas.

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

CONVENTION OF THE NORTHERN NUT GROWERS ASSOCIATION

The Northern Nut Growers Association will hold its seventh annual convention at Washington D. C. on Friday and Saturday, September 8 and 9, in room 42-43 of the new building of the National Museum.

Horticulturists, nurserymen and the general public are invited to attend. We hope people will arrange their trips so as to take in this meeting. Nut nurseries, collections and many remarkable nut trees are to be seen in and around Washington.

The association will offer the following prizes this year:

Butternut. $5 first, $3 second, $2 third and five of $1 each.

Black walnut, shagbark and shellbark hickories, northern pecans, hazels, Japanese walnuts and hybrid nuts, for each $5 first, $3 second, $2 third. Total $85.

In addition the following conditional prizes are offered:

For a hazel nut of pure American origin that can compete with the important filbert, $50.

For a shagbark hickory better than those now being propagated $25.

For a northern pecan better than those now being propagated $10. Total $85.

W. C. Deming, *Secretary,*
Georgetown, Connecticut.

IDAHO QUARANTINES AGAINST PINES

The State of Idaho issued Quarantine Order No. 8 under date of March 1st, prohibiting the importation into that state of five-leaved pines, currant and gooseberry bushes from New Hampshire, Vermont, Massachusetts, Connecticut, New York and Pennsylvania. It is ordered that quarantine guardians immediately deport or destroy such shipments.

Plants for High Altitudes

D. M. Andrews, Boulder, Colorado, proprietor of the Rockmont Nurseries, reports a very successful season, which contrary to conditions in the east, began early and promises to hold on well. Mr. Andrews specializes on growing plants native to his own state, which due to the varying altitudes has a very rich and interesting flora.

With noteworthy enterprise he is endeavoring to make his nursery a clearing house of information as to the trees and plants that are best suited to the different altitudes, by encouraging reports of his customers and others that are interested in planting.

The following list has so far been compiled:

Unmarked are recommended for 6-7 thousand feet. Marked (x), 7-8 thousand feet. Marked (xx), 8-9 thousand feet. (xxx), may be tried above 9,000.

SHADE TREES

Celtis reticulata
Elaeagnus angustifolia (xx)
Gleditschia triacanthos (x)
Populus acuminatus (xxx)
" angustifolius (xxx)
" Sargentii (x)
" nigra fastigiata
Quercus macrocarpa (xx)
" palustris
" rubra (x)
Salix aurea (x)
" fragilis

EVERGREENS

Juniperus scopulorum (xx)
" Siberica (xxx)
Picea Engelmanni (xxx)
" pungens (xxx)
Pinus flexilis (xxx)
" Mughus (xx)
" scopulorum (xx)
Pseudotsuga Douglasi (xx)

VINES

Ampelopsis Engelmanni (x)
" vitacea (xx)
Clematis ligusticifolia (xx)
Humulus Neo-Mexicanus (xx)
Lonicera Halleana
" sempervirens
Vinca minor (xx)
Vitis vulpina (x)

SMALL TREES and LARGE SHRUBS

Acer Tataricum Ginnale
Acer glabrum (xxx)
Alnus tenuifolius (xxx)
Betula fontinalis (xxx)
Caragana arborescens (x)
Crataegus cerronis (xx)
" Coloradensis (xx)
" saligna (xxx)
Prunus Americana (x)
Prunus melanocarpa (xx)
Hippophae rhamnoides (xx)
Lonicera Morrowi
" Tatarica (x)
Robinia Neo-Mexicana (x)
Opulaster pubescens (xx)
" Ramaleyi (xx)
" opulifolia (xx)
Rhamnus catharticus (x)
Rhus typhina
Salix Bebbiana (xxx)
" irrorata (xxx)
Shepherdia argentea (xx)
Viburnum Lentago (x)

MEDIUM and SMALL SHRUBS

Berberis Fendleri (x)
Berberis Thunbergii (x)
Berberis vulgaris
Caragana Chamlagu (x)
Cercocarpos parvifolius (xx)
Cornus stolonifera (xx)
Corylus rostrata (x)
Jamesia Americana (xx)
Lonicera involuccoata (xxx)
Opulaster monygn. (xx)
Potentilla fruticosa (xxx)
Prunus Besseyi (x)
Rhus glabra (x)
" " laciniata
" trilobata (xx)
Ribes cereum (xxx)
" inerme (xx)
" longiflorum (xx)
" saxosum (xx)
Rosa Engelmanni (xx)
" Fendleri (x)
" Sayi (xx)
" Harrison's Yellow (x)
" rubiginosa (x)
" rugosa
Rubus deliciosus (xx)
Spiraea Van Houttei
" Billardii
" salicifolia alb.
Symphoricarpos occidentalis (xx)
" oreophilus (xx)
" pauciflorus (xx)
" racemosus
" vulgaris (x)
Syringa vulgaris and vars. (x)
Viburnum cassinoides
" opulus

A MONUMENT TO "JOHNNY APPLESEED"

Memorial exercises were held at Fort Wayne, Indiana, under the auspices of The Indiana Horticultural Society when a large monument consisting of a natural granite boulder seven feet high and five feet wide was unveiled in memory of "Johnny Appleseed," a unique character that practically gave his life to planting and caring for apple orchards for the pioneer settlers of Indiana and Ohio. The following is the inscription on the monument: "Johnny Appleseed" (John Chapman) Born in Massachusetts, 1776—Died near Fort Wayne, 1842, Buried in the David Archer Cemetery. Pioneer apple grower of Indiana and Ohio. The Indiana Horticultural Society and all those who are endeavoring to carry on the work he nobly commenced join in dedicating this monument to the memory of his deeds."

Specialists of the Department of Agriculture have been investigating the use of tractors on the farms of Illinois to see to what extent they displaced horses.

According to reports from over 400 owners of tractors they have not displaced horses to any very great extent. In about two-thirds of the cases they displaced horses to about 50 per cent of the cost of the tractor out-fit.

The greatest advantage of the tractor is, that it does the heavy work quickly, and thus completes it in the proper season.

More than likely this will prove to be their chief value to the nurseryman rather than direct economy in displacement of horses.

AMERICAN PEONY SOCIETY

The American Peony Society will hold their thirteenth Annual Exhibition in conjunction with the Horticultural Society of New York at the American Museum of Natural History, 77th street and Central Park West, from June 9th to 11th, 1916. Official premium list containing full information as to the exhibition may be obtained from Mr. George V. Nash, Secretary of the Horticultural Society of New York, Bronx Park, New York City. Those desiring information about the American Peony Society should write A. P. Saunders, Secretary, Clinton, New York.

THE TREE MAN

Is there no spot within creation's borders,
  Where Treemen do not go,
Soliciting, with honeyed words, your orders,
  Whether you will or no?

I bought a home away from road or village—
  A bit of rocky ground—
Up a hillside where no spot of tillage,
  Has ever yet been found.

And here, afar from all the world's vain pageants,
  Close by a lonely shore,
I thought that treemen and insurance agents,
  Would trouble me no more.

But one fair morning, lo! a smiling stranger
  Came toiling up the hill.
Perhaps it was the coming of a Granger,
  A mission to fulfill.

A portly form, with shining chains adorning,
  Like gold, his stalwart breast,
His genial countenance and frank "good morning,"
  A subtle charm possessed.

Perhaps I was vexed to see him thus approaching—
  Perhaps my words were rude—
Why come you here this morning, said I, encroaching
  Upon my quietude.

He smiled and answered, "I'm an agent true—
  Of a house of world-wide fame,
The Buncombe Nurseries, doubtless known to you—
  None bear a better name.

I tried to leave him—plead my household duties—
  But he my motive knew.
He op'ed his Plate Book: ah! what gorgeous beauties
  Appeared before my view.

Apples and pears than morning rose tints fairer,
  Among their leaves of green,
Moore's Early grapes, and peaches rarer,
  Than e'er before were seen.

Here's for your garden, roses, pale and blushing,
  LaReine, Jacqueminot,
Deutzia Crenata, and Wiegelas flushing,
  In all their summer glow.

Spruces of Norway, Oaks, and Willows weeping,
  As in the Emerald Isle:
Bignonias and Chinese Ivies creeping
  Along the heath-grown stile.

"A few short years and you, a lordly freeman,
  With flowers and fruits in store,
Will bless the day the old gray-bearded Treeman,
  Tarried before your door."

Alas! the eloquence of classic ages,
  Its boasted laurels won.
Alas! the poesy of Horace's pages,
  Its charms were here outdone.

I saw my grounds with flowers and fruitage teeming,
  Beneath the autumn skies,
My stately trees around me in my dreaming
  Like Jonah's Gourd arise.

I heard the blithe bees all around me humming,
  "Yes, put me down, I'll sign."
He smiled and said, "your trees shall be forthcoming,
  Your name upon this line."

He left me happy, but I could have shot him,
  As low I heard him say,
"A tough old cuss: but, by the gods I brought him,
  This is my lucky day."

Therefore my heart exclaims: is there no valley,
  No hill, no far off clime,
The Treeman does not visit oft, to dally
  Through all the summer time?

We flee unto the northern hills romantic,
  And meet him everywhere,
We hie away unto the Isles Atlantic,
  Lo! he is there.

—From an old Scrap Book.

Obituary.

W. L. McKAY.

W. L. McKay, Geneva, N. Y., died suddenly May 25th, at his farm west of the city. Mr. McKay was apparently in his usual health until the time he was stricken.

GEORGE H. MOODY.

George H. Moody, Niagara Nurseries, Lockport, N. Y., died in his late home, No. 555 Pine street, April 25th.

He was born in Penfield, Monroe county, March 15, 1838, and was educated in the Lockport schools and Niagara Academy, Niagara Falls. He began business with his father and continued it until the latter's death in 1891. After this business was retained under the name of E. Moody & Sons, the other member of the firm being a brother, Edward M. Moody.

He was a member of the Masons, a trustee of the Farmers' and Mechanics' Savings Bank, of Lockport, and a member of the Western New York Horticultural Society.

Besides his wife and brother, he leaves one sister, Mrs. Edward M. Scott, of New Rochelle, N. Y.

ALFRED MITTING.

The death of Alfred Mitting occurred on Sunday, May 7th, at San Jose, California.

Mr. Mitting was well known to the trade as the founder of the Berrydale Experimental Gardens, Holland, Mich. He was born in England in 1858 and came to America in 1877. He was the founder of the great calla lily bulb industry that developed into a business of immense proportions in this state, the plant being situate near Santa Cruz, at Seabright. Mr. Mitting was the author of a number of works on the planting, growing, cultivating and development of berries.

He is survived by his widow, Helen J. Mitting, and two children, Ernest De Roo and Flora B. Mitting.

Mr. E. De Roo Mitting, his son, will take charge of the Berrydale Gardens as business manager.

BOOK REVIEW

The Orange Judd Co., 315 Fourth avenue, New York, have published a book by M. G. Kains, Prof. of Horticulture, Pennsylvania State College, under the title of "Plant Propagation, Greenhouse and Nursery Practice." It is a book of 308 pages and 213 illustrations. Prof. Kains is to be congratulated in covering the field in such a thorough, practical manner, and in confining himself to just those things the student and workman wants to know.

Either for reference or study it is a splendid work, up-to-date in practice with no waste verbiage.

The price of the book is $1.50 net.

TREE AND SHRUB SEEDS

The falling of the Silver Maple seeds reminds us of a job that is very likely to be overlooked until it is too late, namely the collecting of tree and shrub seeds. The nurseryman who raises a portion of his stock from seed will find there will be a shortage the coming season, due largely to a shortage in the European supply, and he will be wise who collects all that is possible. None of the better class of seeds should be allowed to go to waste, even if they are not wanted for home sowing there will more than likely be a demand which will permit of their being disposed of profitably.

Many kinds ripen so quickly they have to be watched very closely, a day too long and the entire crop will be gone, in fact the birds are always on the watch and will clean them up in a short time. I recall an instance where the foreman was out in the nursery and saw a fine crop of *Pyrus aucuparia* berries in the morning, in the afternoon he sent a boy to gather them but the birds had cleaned them up, and so it is with quite a number of things. The birds are so fond of the White Fringe berries they will hardly allow them to get ripe.

Many of the very early ripening seeds such as the Silver Maple, Elms and Birches may be sown as soon as gathered and will make nice plants by the autumn.

From the U.S.D. of A.

OCCURRENCE AND CONTROL OF ROSE-CHAFER

A Beetle that Damages Vegetables, Fruits and Flowers

The rose-chafer or "rose bug," as it is often called, one of the most widely distributed and troublesome insects with which the florist or gardener has to contend, is the subject of a new Farmers' Bulletin (No 721) of the Department of Agriculture, by F. H. Chittenden and A. L. Quaintance. The insects appear as long-legged beetles of a yellowish brown color, usually in the month of June. They strip all kinds of vegetables, fruits, and flowers of blossoms and foliage, and where especially plentiful do great damage. In from four to six weeks after their first appearance they leave as suddenly as they came. Rose and grape vines especially suffer from attacks of the insects, but the beetles are almost equally destructive to fruit, shade and other trees and shrubs.

When the rose-chafers are especially numerous, they attack even berries, peas, beans, and nearly all garden fruits and vegetables. In their attacks upon the grape, they first devour the blossoms, then they strip the leaves, leaving only a thin net-work, and later the young grapes are eaten. Whole vineyards and orchards often are devastated and whole crops in certain sections of the country are destroyed.

Besides the damage done to vegetation, the beetles sometimes cause the death of young chickens. The chickens eat the beetles and poisoning results in the death of the chicken within 24 hours. Experiments have developed the fact that from fifteen to twenty beetles are sufficient to kill a week-old chick.

The character of the soil bears an important relation to the appearance of the rose-chafer. Light sandy regions are greatly preferred as a breeding ground, while clay lands, unless near sandy soil, are seldom troubled.

Methods of Control.

A thoroughly effective remedy against this insect is yet to be discovered. Any application that may be made is unsuccessful unless applied almost continuously, for as often as the beetles on a plant are killed, others arise from the ground or from neighboring fields to take their place. Many so-called "sure" remedies, including compounds of copper, lime, kerosene, and tobacco, have failed to give results when put to a rigid test. Whatever practice of a remedial nature is undertaken, whether collecting or spraying, it should be begun at the first onset of the insects' attack and continued until they disappear. The work should not be confined entirely to those useful plants which it is particularly desired to preserve, as the insects attack many other plants.

Ornamental plants that are hardy may possibly be protected by a heavy application of arsenate of lead, using 4 or 5 pounds to 50 gallons of either water or Bordeaux mixture. Very thorough applications should be made when the insects first appear, and repeated applications should be made as found necessary. A considerable degree of protection to vineyards is afforded by the timely and thorough use of arsenical sprays, the amount of benefit varying with the abundance of the insects. Since the use of poison sprays at the time of "rose-bug" invasion is desirable for the control of other grape pests, vineyards in sandy regions and subject to the attack of this insect should be sprayed regularly as a part of the routine of the vineyard work. The first application of spray should be given just before the blossoms open, and if the beetles continue to be destructive, the treatment should be repeated as soon as the blossoms fall. Vineyards regularly sprayed should be less injured by the rose-chafer than those which are not so treated.

For the destruction of the beetles on fruit trees, as peach, apple, etc., arsenate of lead should be used, preferably in a fungicide, such as Bordeaux mixture, when the beetles first appear. It should be applied at the same strength indicated for vineyards, namely, 4 or 5 pounds to 50 gallons of spray. In spraying peaches and other stone fruits the arsenical should be used in the self-boiled lime-sulphur wash or in 50 gallons of water which contains lime wash made from slaking 3 or 4 pounds of good stone lime. Repeated applications may be necessary, depending upon the extent of reinfestation of the trees by newly emerged beetles, or those from other sources.

The rose-chafer is extremely sensitive to disturbance when it is in the pupal stage in the soil. Since both larvae and beetles are very tenacious of life, the pupal stage appears to furnish the most vulnerable period of attack and large numbers may be destroyed by simply stirring the breeding grounds at the proper time to a depth of 3 or more inches. In northern Ohio the most favorable time for the application of this remedy is from May 25 to June 10. In the South the operation should be commenced earlier. All ground which might serve as a breeding place should be plowed and harrowed at the proper time. The least possible light sandy soil should be left in sod, only the heaviest land being used for grass.



Two horses will do the same work with this digger as twelve horses do, with them now in use. Write for descriptive circular with testimonials.

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If you need Everbearing strawberry plants to fill spring orders or if you wish to increase your planting in nurseries, we can supply you with genuine PROGRESSIVE Everbearing plants, guaranteed to be TRUE TO NAME and handled so as to reach you in best of growing condition. Write for prices.

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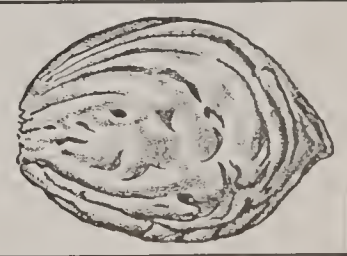
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Owing to the backward spring—probably less than sixty per cent. of Root Cuttings and Transplants were put out as were grown last season throughout the country. **GET WISE**—while the growing is good,—and **CONTRACT NOW**—with

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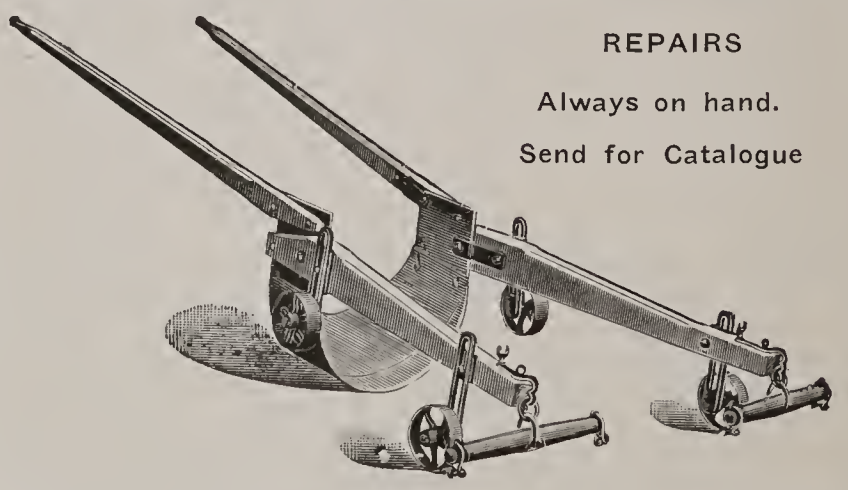
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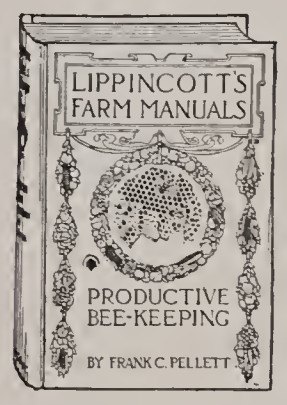
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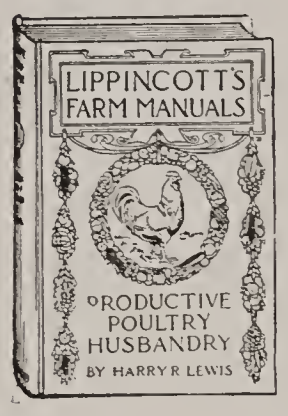
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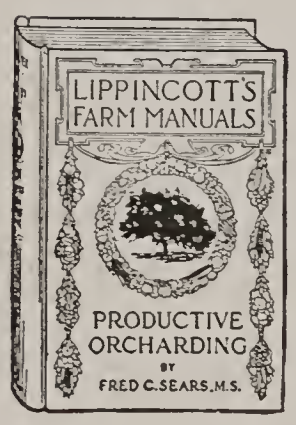
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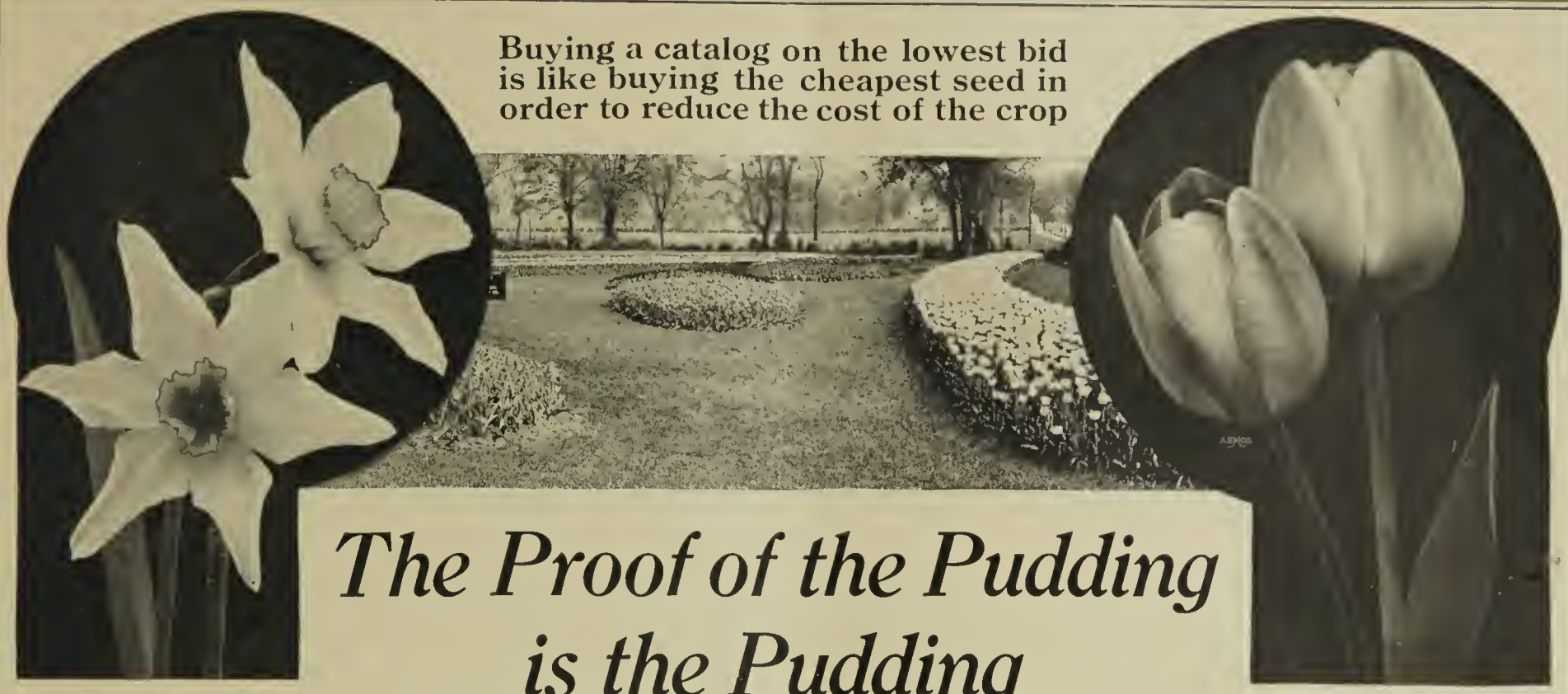
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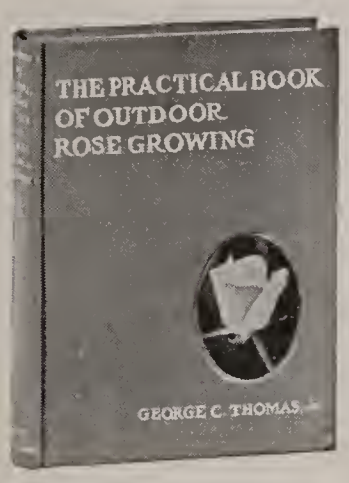
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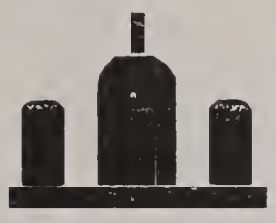


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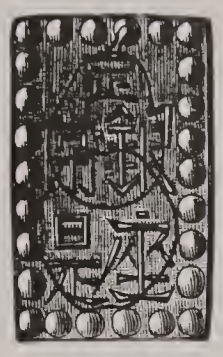
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HERBACEOUS PERENNIALS

Write for our Special Prices

SPECIAL ATTENTION given to Dealers, complete lists and carload lots.

W. & T. SMITH COMPANY

GENEVA, N. Y.

70 Years 1000 Acres

1857 1916

BRAGG'S

COMMON SENSE

TREE DIGGER



REPAIRS

Always on hand.

Send for Catalogue

Digger gets All the Roots at the rate of Twenty to Forty Thousand trees per day, and only needs same power as plow.

L. G. BRAGG & CO.

KALAMAZOO, MICH.

August Rolker & Sons

are the sole American Agents for

LEVAVASSEUR & SONS
Ussy and Orleans, France

Wholesale Growers and Exporters of

Fruit and Ornamental Stocks, Evergreens, Herbaceous plants, Roses, Manetti, etc. Largest shippers to America.

M. GIELEN NURSERIES,
Oudenbosch, Holland.

Extensive growers of FOREST, AVENUE, and ORNAMENTAL Trees and Shrubs, Evergreens, HARDY ROSES, Etc.

W. KEESSEN Jr. & ZONEN,
Terra Nova Nurseries, Aalsmeer, Holland

SPECIALISTS IN BOXWOOD of all shapes, also TOPIARY clipped forms, MAGNOLIAS, hardy AZALEAS, RHODODENDRONS, Etc.

IMPORT ORDERS for FALL DELIVERY are booked now for BULBS from JAPAN, HOLLAND, FRANCE; BAY TREES from BELGIUM, Prime RAFFIA furnished in original bale lots; and other Nursery and Greenhouse Supplies

CUSTOM HOUSE BUSINESS
and reforwarding promptly attended to.
Address for lists and further detail:

P. O. Box 752 New York
or 51 Barclay St.

FOREST TREE SEEDLINGS

—AND—

ORNAMENTAL SHRUBS

AT WHOLESALE

We offer for Fall 1916 and Spring 1917

A Large Stock of Altheas in varieties, Barberry Thunbergii Calycanthis, Cornus Florida, Duetzias, Forsythias Privets, Weigelias in varieties, Maples, Chestnuts, Hackberry, Persimmons, Elms, Poplars, Japan, Walnuts, Butternuts, Rhubarb, Etc.

WRITE US FOR QUOTATIONS

FOREST NURSERY COMPANY,

McMINNVILLE, - TENN.

BAILEY'S BRAND NEW STANDARD

Cyclopedia of Horticulture

The National Nurseryman, by special arrangement with the publishers, offers this work on easy terms. Six large quarto volumes. More than 3,600 pages. 24 full page exquisite color plates. 96 beautiful full page sepia halftones. More than 4,000 text engravings. 500 Collaborators. Approximately 4,000 genera, 15,000 species and 40,000 plant names.

The new Standard Cyclopedia of Horticulture has been freshly written in the light of the most recent research and experience. It is not merely an ordinary revision or corrected edition of the old Cyclopedia, but it is a new work from start to finish with enlarged boundaries geographically and practically; it supercedes and displaces all previous editions or reprints of every kind whatsoever. It is both an Encyclopedia and a Manual, for with the aid of its Synopsis and Key, amateur and professional alike may quickly identify any plant, shrub or fruit contained within the set, and then receive expert instructions for its cultivation.

Send for 16 page Prospectus

Containing complete description. Everything newly written, up-to-date and beautifully illustrated in colors and sepia.

The National Nurseryman

HATBORO, - PENNA.

NOTICE OF DISSOLUTION OF PARTNERSHIP

Notice is given that the firm of Thomas Meehan & Sons was dissolved June 30th, 1916.

The Retail Department and Nursery at Germantown, Phila., and the Landscape Department at Mt. Airy, Phila., will be continued by S. Mendelson Meehan and J. Franklin Meehan, under the firm name of Thomas Meehan & Sons.

The Wholesale Department and Nursery at Dresher, Pa., has been taken over by Thomas B. Meehan and his son, Albert F. Meehan, and will be conducted under the firm name of Thomas B. Meehan Co.

All accounts due Thomas Meehan & Sons at Dresher, are due and payable to

Thomas B. Meehan Co.,
Dresher, - Penna.

SPECIMEN EVERGREENS

IMMEDIATE SHIPMENT



Arbor Vitae, American, 3 to 4 feet.
" " " 4 to 5 feet.
" " " 5 to 6 feet.
" " Columbia, 2 to 3 feet.
" " Lutea, 3 feet.
" " Pyramidalis, 3 to 4 feet.
" " " 4 to 5 feet.
" " Tom Thumb, 2 feet.
Juniper Irish, 4 to 5 feet.
" Virginiana Glauca, 3 feet.
" " Sinensis, 2 to 3 feet.
" " " 4 to 5 feet.
Retinispora Filifera, 2 to 2½ feet.
" " Aurea, 15 inches broad.
" Obtusa Nana, 12 to 18 inches.
" Squarrosa, 2 to 3 feet.
Spruce, Kosters, 3 to 4 feet.
Boxwood, Pyramids, 3 to 4 feet.
" Standard
Rhododendrons, choice lot.

W. B. COLE, - - Painesville, Ohio

FOR ALL 1916

The following contracted stock is offered to the trade:

CLEMATIS, Large-flowering Varieties.
ROSES, field-grown, Own-roots and Budded.
AMPELOPSIS VEITCHII, 2 and 3 Years.
RED-FLOWERING DOGWOOD.
C. L. W. BIRCH.
PERFECTION CURRANTS.
ST. REGIS RASPBERRY.
SHRUBS in General Assortment.
FRUIT TREES.

All carefully grown, well-graded, properly packed; prices right; no big "overhead," no traveling; no expensive staff; just me and the type-writer!

French Stocks and Seedlings

Sold for Mr. F. Delaunay, Angers, France; reference gladly made to any of those who ordered through me last season, for information as to quality, grading and packing; importing expense bills cheerfully offered to show what the service costs.

Let us talk it over at the Milwaukee Convention.

JOHN WATSON,
Wholesaler — Jobber — Importer.
NEWARK, - NEW YORK
June 1, 1916.

SEEDLING EVERGREENS

BY THE MILLIONS

Arbor Vitae	Jack Pine
Austrian Pine	Norway Spruce
Black Hill Spruce	Pinus Ponderosa
Colo. Blue Spruce	Pitch Pine
Concolor	Red Spruce
Douglas Spruce	Scotch Pine
Engelmanii Spruce	White Pine
European Larch	White Spruce

All sizes. Ask for prices.

SPECIAL QUOTATIONS ON LARGE ORDERS

Also the following **APPLES** in 1-2 in., 5-8 in. and 11-16 in. sizes at special prices:

Ben Davis, Duchess, Florence, Gano, Hibernal, Iowa Beauty, N. W. Greening, Okabena, Patten's Greening, Peerless, Peter, Pewaukee, Scott's Winter, Soulard, Strawberry Crab, Transcendent, University, Virginia, Wealthy, Whitney and Wolf River.

SHERMAN NURSERY COMPANY

CHARLES CITY, IOWA

The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

Stark Bros. Nursery & Orchards Co.
LOUISIANA, MO.

THE BEST IN NURSERY PRODUCTS

We carry a full line of fruit and ornamental trees, evergreens, shrubs, etc. Send us your list of wants.

Listed below are some real winners. If what you need is not here, write for our trade list.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Magnolia Tripetela, Japan and American Judas, English Walnuts, Japan Walnuts, California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Apples and Peaches, 10,000 Downing Gooseberries, 2 years, No. 1.

HOOPES, BRO. & THOMAS COMPANY
Established 1853 — West Chester, Pa.
Maple Avenue Nurseries
Philadelphia Office:
222-3-4-5 Stephen Girard Building — 21 South Twelfth Street



P. D. Berry, Wholesale Nurseryman, is offering for Fall 1916

In Storage, can ship any time

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, Hydrangea, P. G., California Privets, Barberry THUNBERGII, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

Quotations furnished by letter.

P. D. BERRY,
Dayton, - Ohio

OUR STRAWBERRY PLANTS

As fine as ever grew. We have them on our own grounds (fresh new land). Plants strong, vigorous and healthy, with an abundance of fibrous roots. **Every plant guaranteed true to name.** No better anywhere, at any price. Our plants are hardy everywhere, where strawberries are grown. **BIG STOCK OF PROGRESSIVE**, the best of all the fall bearing varieties. Also full line of raspberries, blackberries, grape vines and other small fruits. We fill orders any time in November, December, January, February, March and April. Let us hear from you.

THE W. F. ALLEN CO.

100 Market St.,
SALISBURY - - - MD.

☞ All plants tied 25 to the bunch and every bunch labelled.

We keep on hand large supply of Nature, Fruit, Flower, and Shrub

PLATES

We design covers for nursery catalogues and also print inserts in natural colors.

CHRISTY COLOR PRINTING ENGRAVING CO.
Inc.
183 St. Paul St., - Rochester, N. Y.

We are now ready to quote lowest prices on
FRUIT, SHADE AND ORNAMENTAL TREES, SHRUBS, EVERGREENS, VINES and HERBACEOUS PLANTS

FOREST TREE SEEDLINGS we only have in limited supply this season, and would advise placing your orders early.

TREE SEEDS we can supply in limited quantities. Send list of your requirements for lowest prices. Trade list ready.

The Willadean Nurseries
Sparta, Ky.

Vincennes Nurseries, W. C. REED, Prop.
VINCENNES, - - INDIANA

Leading Specialties for Fall 1916
Cherry, Two Year, extra fine, leading varieties in car lots
Cherry, one year, 11-16 up and smaller grades
Our Blocks of Cherry are perhaps the largest in the country
Std. & Dwf. Pear, Japan Plum, Compass Cherry
Peach, One Year, Car lots or less
Weeping Mulberry and Bungei Catalpa
Hardy Budded Pecans and English Walnuts

WE OFFER

Grape Vines, Currants and Gooseberries
in all varieties and grades
—also—
Grape and Currant Cuttings and Light Grade of Vines for Lining Out in Nursery Rows
WRITE FOR PRICES
F. E. SCHIFFERLI, Fredonia, N. Y.

You can save *TIME* and *MONEY*
if you use our neatly packed
SHEET NURSERY BURLAP
Put up in bales
In various size sheets ranging in size from 24x24 to 40x40 in.
Write for particulars
Sarachan & Rosenthal
64-66 Hanover Street
Rochester, - - New York

The Westminster Nursery
J. E. Stoner, Prop.
WESTMINSTER - - - MARYLAND
We offer for Fall 1916 and Spring 1917
500,000 PEACH, 40 Varieties, 1 year buds
CALIFORNIA PRIVET, 1 year and 2 year
ASPARAGUS, 1 and 2 year
SNYDER BLACKBERRY, root cuttings
DOWNING GOOSEBERRY PLANTS, 2 year
HYDRANGEAS, P. G., 2 to 3 feet and up
BARBERRY THUNBERGI, 2 and 3 year transplanted
Can supply the above stock in car load lots or less, also, have a large stock of Rhubarb, Cumberland Raspberry Plants, Spireas, Deutzia Assorted, nice specimen plants. Evergreens, Horse Chestnut, N. Maple, Lombardy Poplar and Planes, etc.
We will make attractive low prices for early orders
SEND LIST OF WANTS

For **FUMIGATION** With
HYDROCYANIC ACID GAS
"CYANEGG"
Sodium Cyanide in egg shape, each egg weighs as near one ounce as possible. Destroys scale insects on Fruit Trees, Nursery Stock, Plants under glass and in Greenhouses.
Manufactured in U. S. A. by
The Roessler & Hasslacher Chemical Co.
100 WILLIAM ST. - NEW YORK, N. Y.

WOOD LABELS
For Nurserymen and Florists
The kind that give satisfaction.
Facilities for the handling of your requisite, combined with the quality of our product is unsurpassed.
Samples and prices are at the command of a communication from you.
Dayton Fruit Tree Label Co.
South Canal St., Dayton, Ohio

Berberry Thumbergii Seedlings

Get our prices before placing your order.

C. E. WILSON & CO.

Berberry Specialists

MANCHESTER, - CONNECTICUT

For Fall 1916

Abelia	Field-grown Roses
Ardisia rubra	Fruit and Shade Trees
Biota aurea conspicua	Laurocerasus
Biota aurea nana	Ligustrums
Boxwood	Olea fragrans
English Walnuts	Wistarias, grafted

We are now ready to make prices.

P. J. Berckmans Company

Fruitland Nurseries

Augusta, - - Georgia

"We Raise Our Own Trees"

Evergreens

SEEDLINGS—TRANSPLANTS

Select from our specialized collection of young conifers for every place and purpose. Stock particularly suited for lining out and forest planting. Your order will have personal attention and the price will be right. Send for our catalogue and save money.

Discount to Trade

The North Eastern Forestry Co.

Box E. CHESHIRE, Conn.

V.G.'S VERY GOOD

HARDY NURSERY STOCK SUCH AS

AZALEAS, BUXUS,
CONIFERS, EVERGREENS,
PAEONIES, MAGNOLIAS,
RHODODENDRONS, ROSES, ETC.

Offered by

VAN GELDEREN & CO.

Wholesale Nurseries

Ask for Catalogue **BOSKOOP (Holland)**

FAIRFIELD NURSERIES

FRUIT AND SEED FARMS

OFFER *for Fall 1916*

GRAPE VINES—One and two years old. Varieties largely Moore's Early, Concord and Niagara.

Also Scarlet or Crimson Clover Seed and Cow Peas. Free from weed seeds, all recleaned and guaranteed first class.

Correspondence solicited. Price list upon request.

CHAS. M. PETERS

P. O. Address, Salisbury, Wicomico County, Md., R. F. D. 3

Long Distance Phone and Telegraph, Salisbury, Md.

The Framingham Nurseries

200 Acres
High Grade
Trees, Shrubs,
Evergreens,
Vines, Roses,
Etc.

DEAL TRADE MARK

Fine Stock
of
Rhododendrons
Kalmias
and
Andromedas

Send for Price List

W. B. WHITTIER & CO.

FRAMINGHAM, MASS.

We have a splendid stock of

Grape Vines

and other small fruit plants for the Nursery trade, graded up to the highest standard and sure to please you.

Give us a trial order, send in your list now for quotations

WHEELOCK & CONGDON

SUCCESSORS TO
WILLETT & WHEELOCK

North Collins, N. Y.

Foster-Cooke Co.

Nurserymen ***Fredonia, N. Y.***

Growers of

Grape Vines, Gooseberries, Currants

One and two years old. Graded up to the highest standard. Our stock never looked better. Write us for catalog. Send us your list of wants. Our prices are right, our stock A No. 1.

We grow our Stock up to QUALITY and GRADE, not down to a price. Nevertheless, our prices are always in line, you can't afford to pay less, and there's no sense in paying more. If you are pleased with what you have been getting, you will be better pleased with our stock.

APPLE and PEAR STOCKS

We offer Apple Seedlings -- good, clean, healthy stocks -- well graded -- carefully handled and packed -- and we guarantee that they will arrive at your station in prime condition.

PEAR STOCKS -- JAPAN

These stocks are proving very popular. They are strong, vigorous growers -- not subject to blight or root louse, like the French stocks.

In placing your order for Apple and Pear stocks buy something definately. Of course it is a nice thing to sell "Subject to crop conditions" "Subject to loss in transportation" "Subject to this and that". But it is not a nice thing to find out at shipping time that stocks are higher and that you have no order booked positively.

It will cost you very little to get our prices -- it will probably save you many dollars.

F. W. WATSON & CO.,

TOPEKA, KANSAS

Apple and Pear Seedling Specialists.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK

The National Nurseryman Publishing Co,, Incorporated

Vol. XXIV. HATBORO, PENNA., JULY, 1916. No. 7

The Milwaukee Convention

THE Forty-first annual convention of the American Associeation of Nurserymen opened up under the most favorable conditions. The weather was ideal. Members began to arrive in great numbers, the day before the Convention opened, committees got busy and everything was business. The old order of things has passed away. While the same geniality was everywhere present there was an air of businesslike seriousness that made everyone feel that things were going to be accomplished.

The first meeting under the new eonstitution proves it to be a really new organization which is going to be a power in the nursery world. Henceforth it will not be a ease of the Associeation solieiting membership, but rather the Associeation passing on the fitness of the application for membership.

The first session was a very inspiring one as all the speakers and papers seem to have caught the spirit of eooperation.

The Rev. C. S. Harrison, York, Nebraska, was not well enough to be present so the invoeation at the opening session was made by a local clergyman.

The Mayor of Milwaukee made a very happy address of welcome in which he called attention to the lack of edueation of the faet that the nurseryman's produets were so essential to the publie health, in faet as neeessary as the bath tub and regretted there were not books or phamplets on the subjeet.

He extended a warm weleome to come again and hoped those present would take a "look" at that which made Milwaukee famous.

John Watson's rsponse was only such as he eould make.

The President's address which we publish on a separate page was received with warm approval, especially those sections which referred to Standardization of Prices and the Tariff.

On motion a telegram was sent to J. R. Mayhew, Waxahaehie, Texas, who was so largely instrumental in the reorganization of the Associeation, and who has reeently submitted to a serious operation "regretting his absenee and wishing him a speedy recovery."

Mr. Wyman's paper had ginger enough to satisfy the temper of its hearers and John Dayton, who opened the diseussion said "Amen."

Henry Chase, Chairman of the Exeeutive Committee.



John Watson, Newark, N. Y.
President, American Associeation of Nurserymen.

among other resolutions proposed "that associate members be excluded from executive sessions of the Association" and although this meant the exclusion of old members such as Mr. Benjamin Chase, of label fame, a former president of the Society, J. Horace McFarland, an earnest worker in the Association for many years and the trade papers, it was generally recognized that allied trades and

interests had no place in the councils of a nurserymen's association.

J. Horace McFarland's paper, "Co-operative Nursery Publicity" pointed out the neglect of publicity and the immense field that was waiting cultivation. He illustrated his point very forcibly by saying—If a man were to go into a public place and shout out the names of prominent nurseries the public would think he was insane but if he shouted the names of prominent advertisers the public would readily recognize them as such.

The plan of advertising suggested was:



Lloyd C. Stark, Louisiana, Mo.
Vice President, American Association of Nurserymen.

1st. Set your house in order so as to be able to back your advertising.

2nd. Show a home premises well planted.

3rd. Look out for new new things and new old things.

4th. Educate the public and give service.

5th. Appoint at once a Publicity Committee to study stocks available, markets and propose publicity plan.

6th. All nurserymen to try out advertising in their local papers and report to Publicity Committee.

The paper was enthusiastically received. James M. Eardman, of the Curtis Cublishing Co., when called upon said "Nurserymen were the best fellows on earth but the durndest, poorest advertisers that ever lived."

E. H. Favor, Managing Editor, Fruit Grower, St. Joseph, Mo., read a paper, "Cheaper, More Productive Advertising" which was an analytical statement of advertising in relation to the nursery business.

The address made by Herbert Chase on the "Proper and Uniform Bunching, Packing and Handling of Nursery Stock," was characteristic of that gentleman. It was a literal account of the experience of the receipt of shipments of nursery stock from a number of growers and very forcibly showed the necessity of labelling each bunch with one or more labels, uniformity of number of plants in the bunch, proper grading, good packing material and boxes and box indexing showing contents.

Mr. W. T. Hood, of Richmond, Virginia, in the discussion gave numerous suggestions on how to pack and drew comparison between foreign packing and that done in this country. He largely blamed our loose methods for much of the business that goes abroad.

That portion of the programe pertaining to inspection matters was of extreme interest.

Prof. J. G. Sanders read a paper on "Danger Ahead" which we are publishing.

Prof. F. L. Washburn in an address on the White Pine Blister Rust, pointed out that there was no quarantine on the Ribes from abroad as yet, but only restrictions on interstate movements.

The discussion brought out that there was no evidence as yet that the rust could be spread by shipping dormant Ribes, but it was such an insidious disease that where there was the slightest danger of spreading it, drastic measures were advisable.

The discussion also demonstrated that there was a much closer relation and more friendly feeling between the entomologists and nurserymen than heretofore, in fact it was brought out that the mild attitude of the Federal Horticultural Board in relation to the White Pine Blister Rust was largely due to the influence of the entomologists in behalf of the nurserymen. The Federal Horticultural Board has plenary powers that could work a great hardship on nurserymen's interests, which appear to be as carefully watched by the entomologists as the bugs and disease.

ELECTION OF OFFICERS

John Watson, Newark, N. Y., was elected President.

Mr. Thomas B. Meehan was asked to escort President Elect Watson to the platform to receive the gavel of authority from the retiring President, E. S. Welch.

Mr. Watson in acknowledging the honor conferred upon him by the National Association, said he now knew the feelings of a New York Democrat upon being elected to office and he deeply appreciated his name being added to the roll of honor consisting of those who had preceded him in the presidential chair.

Mr. Lloyd C. Stark was elected Vice President and took office with a few well chosen words.

It seemed to the members of the Association that its affairs could not be in better hands.

The total registration at the Convention was about 300.

President E. S. Welch's Address

LADIES and Gentlemen of the American Association of Nurserymen:—It was with a degree of hesitancy that I entered upon the position as President of this Association, for I feel that it is an honor of which I am incapable of fulfilling.

My time and energy have always been devoted entirely to the nursery business, and while I enjoy the work and all connected with it, yet, I have never dreamed that the time would come when I would be honored in this way. I wish to assure you that I appreciate it beyond words, and my most ardent hope is that I may in some small way be able to contribute something for all you have given me.

We meet here on this our Forty-first Annual Convention in this beautiful city of Milwaukee—better known as the metropolis of Wisconsin. We appreciate the courtesy and hospitality of its people, and trust that this convention here in this city will leave some marked influence of our existence as a profession.

The nurseryman of to-day is no longer looked upon as a mere peddler of fruit trees, but rather a distributor of necessary commodities, the same as any other commercial industry. The increase in our population, the desire to beautify the city, homes and roadsides has made the work of a nurseryman grow more toward a man of service than a mere toiler for worldly gains.

The grandeur of our cities, the beautifying of homes, the distribution of foliage throughout the barren wastes of our country all are monuments erected to our service and our profession. We no longer like Wordsworth's Peter Bell; "A primrose by the river's brim, a yellow primrose was to him, and it was nothing more." What might that primrose have been to the seeking eye of the artist—a symbol of light or the coming of springtime.

But to mention all of the interesting forms would be impossible, for the nurserymen's duties cover too large a space, and are too far reaching in their scope. Yet to those who admire nature, we can gain comfort like the child who in the story "Without an End;" wandered away and away with nature, the dear old nurse, who sang to him night and day the rhymes of the universe, and whenever the way seemed long, or his heart began to fail, she would sing a more wonderful song or tell a more wonderful tale.

The new era of business has come upon us with a rush of energy that no century has shown before. In most respects, it is like all others. Just as men are men, so times are times.

The applications of science has made the great world grow small, while every part of it has grown insistent. As the earth has shrunk to come within our grasp, so has our own world expanded to receive it. The work of the nurserymen will not grow less as time goes on, for ours is one of expansion, not contraction. The needs of humanity will not decrease with time, and to the tillers of the soil will fall the inheritance of supplying the needs of the world. The sooner we realize it all, just so soon, will we as an orgainzation grow more effective.

America, says Emerson, is another name for opportunity. While Napoleon, perhaps the greatest soldier of the modern world and a man whose intellect baffled Europe for half a century said: America is a fortunate country; she grows by the follies of our European Nations." How far seeing was that man of destiny. Who could have foretold the conditions that exist in Europe today? Are we wise enough to profit by the experience of others?

I shall never forget the pleasing impressions and valuable experience that I gained by visiting some of the European nurseries not many years since. Yet the things that are possible in Europe are not impossible here. We are endowed with better soil, favorable climate, and men capable of producing as good results in our own country as they are in Europe. I refer you to the figures which give the importation of nursery stock



F. W. Dixon, Robert George, C. N. Shumaker, Harry Simpson, J. W. Root

from Europe during the year ending June 30th, 1915; taken from the records of the Federal Horticultural Board:—

Fruit Trees	3,821,547
Fruit Tree Stocks	21,645,672
Roses	3,516,568
Rose Stocks	5,808,814
Forest & Ornamental Deciduous Trees	1,287,274
Ornamental Deciduous Shrubs	3,612,884
Evergreens	1,732,716
Field Grown Florist Stock	1,958,587
Grape Vines and Bush Fruits	242,200
Stocks, Cuttings or Seedlings	9,184,840
Total	48,989,555

The above figures will give us some idea of the enormous amount of nursery stock which is imported from Europe, and how utterly dependent we have been upon the foreign growers. It seems to me that with our wonderful facilities for growing nursery stock in this country, and with the tremendous handicap that we have to

face, owing to the conditions that exist there now, that it would pay us to give this feature serious and deliberate attention.

However, in our zeal for progress we ought not forget the struggles and trials of our brother nurserymen in the old world. It seems to me that it is a fitting time to extend our hands in sympathy to our fellow nurserymen in Europe, and to most earnestly hope that peace is not far distant, and that normal times and conditions will soon return to them as it has been with us in Ameriea.

Ought we not be thankful that our troubles and worries are local; that our zeppelin attaeks are the Gypsy and Brown Tail Moth; our submarine eampaigns the Woolly Aphis; our invading armies the Leaf Rollers and Green Aphis, and our aeeumulated reserves merely Kieffer Pears and Apples.

Our opportunities for effectiveness and expansion were never greater. In hortieulture and agrieulture a whole great empire is yet to be won in the arid West. Vast regions must be fitted to civilization. "Not by imperialism whieh blasts, but by permeation whieh reelaims."

Ex-President Orlando Harrison, urged the training of young men from the eolleges to take up our work and fit themselves for the duties that lie before them; so with us today, let us eneourage every young man to see the opportunities that are before him. Let us bring to him the joy of our work and teaeh him as Lorimer the self-made merehant, who writes to his son at Harvard, "You will meet fools enough in the day time without hunting up the main herd at night," for the nursery business will tax the efforts of every man and will leave no time for idleness. Ours is a great work, and the opportunities were never greater for individual achievement—"It is a Fulton with a paddle wheel; a Miehael Faraday with bottles and tin pans in the attie of an apotheeary's shop; a Whitney with a few tools in a Southern eellar; a Howell with erude needles and shuttles making a sewing maehine, and a Professor Bell, poor, experimenting with the simplest apparatus who have given an uplift to eivilization.

After one of Alexander's eampaigns, he was asked if he intended to take the next eity, if he had the opportunity. "Opportunity" he thundered, "why I make opportunities." So with our work, we must make our opportunities, and it seems to me that the eonditions were never more favorable. True it is that we try to look upon the ideal when we assemble here together, and the delayed shipments, the eongested traffie, the late frosts, the hurry of the busy season, and the worry of the paeking sheds are all forgotten. But as Mr. Chase pointed out in his address last year, "There is nothing to be gained by worry" and like "Foot-prints on the Sands of Time" should be left behind us. Ella Wheeler Wileox has very fittingly said: " 'Tis easy enough to be pleasant when life flows along like a song, but the man worth while is the one who will smile when everything goes wrong."



J. A. Copeman, F. A. Weber, M. B. Fox

Our organization has been made more perfect, our eonstitution and by-laws have been wisely revised, and our organization of eo-workers have put their shoulders to the wheel, and I see great opportunities for advaneement in our work. True we want the best, and there is warning in the sound philosophy of the mountaineer when he was asked, where is the best hotel; "Stranger there ain't no best I reekon, but the least worst is over yonder." J. R. Mayhew and Henry Chase on our Fortieth Anniversary at Detroit last year blazed the way for a bigger and better American Association of Nurserymen with the sole ob-

ject in view of making a more useful and effective trade organization.

Under the re-organized plan of our Association, the management rests largely with the members of the Executive Committee, with the President as Chairman. The Vice President is an active member of this committee, hence we get the benefit of his services. This was especially fortunate during the past year, as Vice President Watson has rendered valuable service to the Association. The President has the active co-operation of the Executive Committee.

During the past year the duties were distributed by the appointment of sub committees as follows:—Finance Publicity, Program, Membership. We found this arrangement worked very satisfactorily and this gathering here is an indication of the faithful service these men have rendered. No important action is taken or money expended, without first securing the approval of the Executive Committee. All bills are passed on by the Finance Committee before being paid.

The President called a meeting of the Executive Committee at Kansas City, at the time of the Annual meeting of the Western Association of Nurserymen. A majority of five members were able to be present. Such questions as Membership, Trade Terms, Publicity, Legislation and Transportation were discussed, and plans were outlined for the future. It was decided to issue a confidential bulletin for the benefit of the membership. We hope you have found this a valuable source of information. We believe this bulletin can be enlarged and made a permanent source of usefulness for our membership. This work was placed in the hands of the Publicity Committee, who handled it in an efficient manner. In this connection, I wish to commend our trade journals for their loyal support, and to assure them we have no intention or desire to encroach upon their grounds, but feel under our new plan of organization, there will be much valuable information that the membership is paying for, and which they are entitled to receive. If the work of our Officers and Counsel is to be published broadcast and made free to everyone, what necessity is there for anyone interested in the nursery business, to pay liberal membership fees and maintain the organization.

I attended a meeting of the Legislative Committee which met in New York in January, at the time of the Ornamental Growers Meeting. William Pitkin, Chairman with Counsel Smith and several members of the committee were present. Many questions affecting the welfare of our Association were taken up and definite action decided upon.

We have been working under the new plan the last year, and this splendid program which is mapped out for us, and this attendance demonstrates the loyalty of the membership. Our Association is favored by the loyal support of the most capable men in the business. They have been untiring in their devotion, unselfish in their efforts, and their chief aim has been to make a bigger and a better Association of Nurserymen.

Your officers find there is a much broader field of usefulness opening up through the concentration of our efforts along progressive lines. Among the many fields of useful activity are the questions of statistics, crop reports, standardization of prices, a reporting rating and collection bureau, uniform legislation, effective publicity and comprehensive group meetings of the various lines of business; represented by our organization. We believe it is going to be practical and possible to help direct the efforts of our membership along these lines in effective co-operation; in such a manner as to make our Association a powerful and useful instrument for the welfare of our members.



A group of prominent nurserymen watching the maneuvers of Vandervort's Tractor Tree Digger

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It is essential that we work in harmony if we expect to attain our aim. Co-operation must be our watch word, and it is my earnest recommendation that all find some common ground by which they can work in harmony. All branches of the business are represented by our organization. Wholesale. Retail through salesmen. Mail Order by catalog. Each find a necessary place for the distribution of our products. All should endeavor to work in harmony, and strive to reach the degree of perfection that is claimed by every other legitimate business. By so doing, our endeavors would be harmonized and a better feeling would result from these efforts.

The efficient and honest nursery salesman, with all his faults is an effective force—ever on the alert for securing business, and always ready to furnish advice and service to his customers. How would Mrs. Smith know that the old fashioned "piny" was really the original of the now perfected plant, or that raspberries do not grow on plum trees, if it were not for the "Much abused, misused,

commercial man," but in reality without his aid, the nursery business would be far behind its present development, and the general public would still be ignorant of the wonderful advancement that has been made in horticulture.

There should be a more intelligent system of planting in order to avoid over production, which results in the demoralization of prices, and the hawking of nursery products about in improper channels of distribution and at ruinous prices creating the impression that nursery stock has no real value. There is no business in the



Prof. J. G. Sanders, Madison, Wis. *Prof. F. L. Washburn St. Anthony Park, Minn.*

United States which pays so little attention to a uniform system and standardization of prices as ours, and if some member of our Association can bring about this much needed change, they will have earned for themselves a lasting name and will have accomplished a great work. A close relationship ought to be established between our National Association and the various District Associations throughout the United States. This would increase the efficiency of all, and secure more effective co-operation in the handling of the many problems that arise.

LEGISLATION:—The work of the Legislative Committee has been greatly benefitted by the employment of the Hon. Curtis Nye Smith, of Boston, as general counsel for the Association. He has given careful attention to all legislative questions that have been brought up during the year. One of the most important is the question of quarantine by the Federal Horticultural Board against the importation of Currants and Gooseberries on account of the White Pine Blister Rust. The Board also have seriously considered quarantining against the shipment of these products from the Eastern section of the United States into other states. This question will be fully covered by Mr. Pitkin, Chairman of the Legislative Committee.

TRANSPORTATION:—There have not been many changes in freight rates since our last convention. Mr. Sizemore, Chairman of this Committee, has given the work careful attention, and made every effort to promote the interest of the members. On June 1st, 1915 rates on car lots in the Official Classification were advanced from Fifth to Fourth Class in spite of the protests of the shipper. Mr. Sizemore has worked faithfully during the year to get the former rating restored, but has not succeeded. An organized effort should be made to secure a minimum of 14560 pounds for small cars in both the Official and Southern Classification territory. The shippers find this minimum a decided advantage in the Western territory and I am confident it is an advantage to the R. R. Company. It encourages shipping in car lot, thereby saving the expense of loading, transferring and handling of many local shipments by employees. It insures more prompt delivery which is a great advantage to both the carrier and consignee.

The congestion of traffic in the East, due to increased volume of shipments on account of the European war has been a difficult problem for many of our Eastern friends. The result has been, serious losses and vexatious delays. Many nurserymen throughout the United States have suffered heavy losses on import shipments, due to war conditions. The transportation of our products has been a serious one for many of us, and it is our sincere hope that these conditions will not continue during the ensuing year.

TARIFF:—The question of tariff is one which has confronted the business man for half a century. Personally, I favor an advance in the rate on nursery stock not otherwise specified, in order to check the importation of foreign stock and give greater protection to the American grower. A large amount of general nursery stock (as has already been pointed out) is imported annually that can be grown and sold at a profit by our American nurserymen; at the prices we pay for it abroad; after adding the cost of delivering and duties.

TRADE TERMS:—The Executive Committee has adopted a system of trade terms which were published in connection with Bulletin No. 1. These terms were also adopted by the Western Association of Nurserymen. The question was submitted to the convention at Detroit and referred to the Executive Committee for action, the printed terms in the form of stickers ready for use may be secured from our Secretary. If the action of your committee meets with your approval, it might be well to ratify them during this convention.

ARBITRATION:—The Detroit convention provided for an Arbitration Committee, where disputes among our mem-

bers may be settled without expensive lawsuits. I wish to impress upon you the wisdom and fairness of our arbitrating all disputes that may arise, with the penalty of expulsion in cases where members are unwilling to adjust differences by arbitration. Our present committee is composed of fair minded men of the highest type, well qualified to act as arbitrators. This committee is serving without compensation. It is a thankless task and those men only exemplify the loyalty of our membership.

FINANCE:—The treasurers report will show that our finances are in good shape, and that your Executive Committee has been careful of expenditures. The cost of Counsel Smith's services may seem high to many of you, but his work covers a wide latitude. He is watching Legislative matters closely to prevent unfair legislation. He acts as general counsel for the Association and all its committees, furnishing free legal advice to the membership, and is always ready and willing to serve our interests wherever possible. In this connection, we should not overlook the importance of legal preparedness for protecting our interests. As President of the Association, I have been able to keep in touch with his work and consider that he has rendered valuable and efficient service during the past year. Mr. Smith will give an account of his work during the convention.

FREE DISTRIBUTION OF NURSERY STOCK:—In some sections of the United States Government Experiment Stations are undertaking the free distribution of nursery stock. In one case, which has been called to my attention, a large Railroad Corporation has established a nursery with the idea of distributing its products free to the people located along its lines. County Demonstration Agents, in some instances, have undertaken to provide for their people by supplying stock at the actual cost of growing. The legitimate expense of advertising, personal solicitation, placing of stock, etc., being paid out of State and Federal funds. In some instances, these well meaning State and Federal employees have taken it upon themselves to warn people against buying from regular and legitimate sources. The practical effect of this to the business is disastrous and creates the impression with the buying public, that nurserymen doing business in a legitimate manner are selling at exorbitant prices. Our state, district and national organizations should cooperate in every way possible to prevent such practices.

COMMITTEE ON NOMENCLATURE:—This committee has been very active and has done much toward making their work permanent. It has arranged for a definite cooperation with other organizations of similar character, and is in a fair way to secure an appropriation of $3000.00 by Congress to promote the work. In view of this activity, I would recommend an appropriation sufficient to care for the actual expense involved in continuing the work during the ensuing year.

PUBLICITY:—This is one of the many important questions which will be presented by able men at this convention. We have talked about Publicity for a long time, and many of our progressive nurserymen feel that the time for action has arrived. It is a big question and deserves our best attention. Publicity in many other lines of business, has accomplished very profitable results, and if we can largely increase the interest in, and demand for our products throughout the nation by reasonable expenditure of money through systematic publicity, it should be worthy of a trial; providing some practical method of securing the necessary funds can be devised.

MEMBERSHIP:—Secretary Hall reports that we have a paid membership of 380 for this meeting, which includes 25 associate members. This is very gratifying to your officers, for there were many misgivings regarding the number of old members, who would stand by the new organization. Most of this number are old members, as our efforts, regarding membership were directed toward retaining last years members.



T. J. Ferguson,
Chairman Committee of Arrangements

We felt we should let the new members seek the organizations. We were pleased to receive quite a number of applications from those who were not members last year, some of them having been members during past years, but had dropped out.

In our revision of the Constitution and by-laws, we provided that all members in the year 1915, upon payment of membership fees, as per schedule adopted, shall constitute the membership of this Association, and, thereafter, all applicants shall be elective by a majority vote of the active members present at any regular meeting; (or in the event of application at a time other than the annual meeting, then the Executive Committee may, upon

a majority vote of said committee, receive such persons into full membership of the Association).

Practically all applications have been acted upon by the Executive Committee, for in order for an applicant to get his name in the badge book, it is necessary for the application to be passed on prior to our annual meeting. I think it is a wise plan not to take up the limited time of the Association, for this is a matter that can be safely entrusted to your Executive Committee.

I am sure that time will prove the wisdom of making membership elective. We hope to make our association worth while and worth seeking membership in; also being a member of the American Association of Nurserymen should mean something. While we should never deny membership to any worthy nurseryman; we should keep out the unworthy. Membership in our Association should be emblematic of honor and integrity.

Secretary:—Secretary Hall has labored faithfully and enthusiastically for the good of the Association. He has worked diligently to persuade the members to see the benefits that would be derived from retaining their membership in the Association. It has not been an easy task, for there were many who could not see the usefulness of the new organization. He has written many loyal and persuasive letters, and behind them has been the true ring of genuineness. He is entitled to our thanks for his sincerity and faithfulness during this probative period.

Program:—I wish to commend the splendid program prepared for us by Lloyd Stark, and urge you to follow it as closely as possible and assist me in carrying it out. There is considerable time allotted for discussion after each subject. We have endeavored to encourage general discussion among the entire membership. The program is one which pertains strictly to business matters, and I hope that it will meet with the approval of the Association, for I know the object has been to place on this program vital subjects worth while.

In Memoriam:—Since our last convention the grim reaper has been in our midst, and death has taken a number of our members to that "Undiscovered Country, from whose bourne no traveler returns." Among them Captain C. L. Watrous, of Des Moines, a pioneer nurseryman of Iowa, who for many years was a prominent worker in our Association, serving as President two terms during the years of 1886 and 1887, and presided at the Atlanta meeting in 1914 in the absence of President Weber. Colonel G. B. Braeket, U. S. Pomologist, Washington, D. C. and Major Frank Holsinger, Rosedale, Kansas, both prominent in horticultural work for many years, were among those who passed away during the year.

In conclusion, I wish to express my appreciation and thanks to our Executive Committee, the Chairmen of the various committees and the membership for the loyal support accorded my administration. It is a pleasure to work shoulder to shoulder with such efficient and earnest men. Your helpful suggestions, earnest co-operation, thoughtful advice and confidence placed in me has been a source of inspiration during the past year.

Again I wish to thank you for this honor.

List of Early Arrivals

W. L. Hart, Fredonia, N. Y.
Orlando Harrison, Berlin, Md.
G. Hale Harrison, Berlin, Md.
M. B. Fox, Rochester, N. Y.
E. F. Rowe, Harrisburg, Pa.
O. P. Beckley, Harrisburg, Pa.
J. Horace McFarland, Harrisburg, Pa.
Theo. J. Smith, Geneva, N. Y.
Thos. F. Welch, Geneva, N. Y.
Thomas B. Meehan, Dresher, Pa.
Albert F. Meehan, Dresher, Pa.
Robert C. Chase, Milwaukee, Wisconsin.
James W. Fraser, Milwaukee, Wisconsin.
Clifford R. Burr, Milwaukee, Wisconsin.
Charles H. Perkins, 2nd, Milwaukee, Wis.
Frank J. Rippin, Milwaukee, Wisconsin.
Lloyd C. Stark, Louisiana, Mo.
Clay Stark, Louisiana, Mo.
Charles Sizemore, Louisiana, Mo.
Homer Reed, Louisiana, Mo.
T. W. Stark, Louisiana, Mo.
Peter Youngers, Geneva, Neb.
W. F. Allen, Salisbury, Md.
N. G. Campbell, St. Joseph, Mo.
E. H. Favor, St. Joseph, Mo.
Ernest Hemming, Flourtown, Pa.
Charles A. Ilgenfritz, Monroe, Michigan.
John Dayton, Painesville, Ohio.
Robert George, Painesville, Ohio.
C. H. Shumaker, Painesville, Ohio.
C. H. Perkins, 2nd, Newark, N. Y.
Milton Moss, Huntsville, Ala.
W. H. Bell, Huntsville, Ala.
Henry B. Chase, Chase, Ala.
Robert C. Chase, Chase, Ala.
James A. Fraser, Huntsville, Ala.
O. W. Fraser, Huntsville, Ala.
H. M. Simpson & Sons, Vincennes, Ind.
I. E. Ilgenfritz' Sons Co., Monroe, Mich.
Ralph T. Olcott, Rochester, N. Y.
John Watson, Newark, N. Y.
Hoopes Bros. & Thomas Co., West Chester, Pa.
A. T. De La Mare Ptg. & Publishing Co., New York.
Paul Lindley, Pomona, N. C.
The United States Nursery Co., Roseacres, Miss.
W. N. Scarff, New Carlisle, Ohio.
Dayton Fruit Tree Label Co., Dayton, O.
C. W. Stuart & Co., Newark, N. Y.
Bartlett Mfg. Co., Detroit, Mich.
The Northern Nursery Co., Denver, Col.
H. K. Morse, Saint Joseph, Mich.
E. P. Bernardin, Parsons, Kansas.
L. R. Taylor & Sons, Topeka, Kansas.
Pennsylvania Nursery Co., Girard, Pa.
J. C. Murphy, Girard, Pa.
E. S. Welch, Shenandoah, Iowa.
O. F. Killian, Manchester, Conn.
William Pitkin, Rochester, N. Y.
Mr. Hill, Des Moines, Iowa.
Mr. Needham, Des Moines, Iowa.
Joseph J. Lane, Garden City, N. Y.
R. J. Coe, Fort Atkinson, Wis.
J. B. Pilkington, Portland, Oregon.
Southern Nursery Co., Winchester, Tenn.
The F. E. Schifferli Nurseries, Fredonia, New York.
F. H. Stannard & Co., Ottawa, Kansas.
C. C. Mayhew, Sherman, Texas.
Fairfield Nurseries, Salisbury, Md.
F. W. Dixon, Holton, Kansas.
The Greening Nursery Co., Monroe, Mich.
McKay Nursery Company, Waterloo, Wis
The Hawks Nursery Co., Rochester, N. Y. & Wauwatosa, Wis.
T. J. Dinsmore, Troy, Ohio.
Marshall Brothers, Arlington Nebraska.
Rice Brothers Co., Geneva, N. Y.
C. H. Weeks Nursery Co., Inc., Lyons, New York.
Champion Nurseries, Perry, Ohio.
T. P. Oliver, Topeka, Kansas.
German Nurseries & Seed House, Beatrice, Nebraska.
P. Ouwerkerk, Weehawken Heights, N. J.
The Whiting Nursery Co., Yankton, S. D.
A. M. Leonard & Sons, Piqua, Ohio.
The Adams County Nursery, Aspers, Pa.
William P. Stark Nurseries, Neosho, Mo.
Samuel E. Blair, Nutley, N. J.
F. & F. Nurseries, Springfield, N. J.
Simpson Nursery Co., Monticello, Fla.
J. A Lopeman, Enid, Olka.
Christy-Color-Printing-Engraving Co., Rochester, N. Y.
Forest Nursery & Seed Co., McMinnville, Tennessee.
Root's Nurseries, Manheim, Pa.
The Willadean Nurseries, Sparta, Ky.
F. J. Grootendorst's & Sons, Boskoop, Holland.
Adolph Muller, Norristown, Pa.
The Robbinsville Nurseries, Robbinsville, New Jersey.
Holsinger Bros. Nursery, Rosedale, Kan.
Holm & Olson, St. Paul, Minn.

Secretary's Report

Members of American Association of Nurserymen:

A pleasing duty placed upon your Secretary by a resolution adopted at the Detroit convention was to express to the "grand old men" of the Association that three pioneers were unable to be present at that gathering. This communication was written to J. Van Lindley, E. W. Kirkpatrick, C. L. Watrous (since deceased); A. N. Willis and C. S. Harrison. Several acknowledgements were received.

In anticipation of queries as to the effect of the new schedule of membership fees under the revised constitution upon the registration, your secretary feels that he cannot answer such in any different language than has already been employed by him in correspondence with the Executive Committee and in the columns of the trade publications. Predictions were made by some that Article 1 of the new constitution, creating "active" and "associate" members, and introducing the plan calling for "additional" dues based on amount of business done, would work disastrously to the Association. The results to date do not show such to have been the case. They have rather justified the wisdom of the adoption of the new rule, for, without any canvass for new members, the Badge Book contains 364 names and ten others have registered since that publication was mailed. The cash receipts for the year have been $5,829.85 against $3,151.90 in 1915. For several years past effort has been made by specially-appointed committees to obtain new members, with some success, but, in not a few instances, we apprehend, the favorable response given to the invitation was largely intended as a compliment to the individual soliciting the membership, and therefore such have not remained permanent.

Your Executive Committee has passed favorably upon 21 of the 24 new applications for memberships, but after careful investigation, have been compelled to decline the other three.

To hold membership in this Association from this time on will mean very much more to the individual nurseryman who enjoys the privilege, than the mere perfunctory act of registration.

For the last six years, the average registration has been 378. It ought to be twice that number.

To assist diffident members to become more easily acquainted with their brethern, it was decided to try the use of a bar containing a card upon which members are asked to write their name in a good bold hand.

The tireless reaper—Death—has again attacked our numbers and removed several members during the year.

Captain Charles L. Watrous, of Des Moines, Iowa, fell to sleep in March of the present year. Mr. Watrous was one of the "old guard" of this organization.

Mr. F. W. Power of the Oregon Nursery Co., Orenco, Oregon, early in this summer, died after a siege of ill health, the immediate cause of death being blood poisoning, which developed from an accident.

Mr. W. Atlee Burpee, of Philadelphia, Pa., died November 25, 1915, aged 57. He was a former member.

We also mention because of his prominent connection with the Division of Pomology in the U. S. Department of Agriculture, the removal of Mr. G. B. Brackett, in December of last year.

Also Major Frank Holsinger, Rosedale, Kansas, January 2d, of this year. He was not a member, but Holsinger Bros. have recently allied themselves with this Association.

W. L. McKay, Geneva, N. Y.

H. S. Wiley, Cayuga, N. Y.

There may be others of whose death we have not been advised. Members who know of such, are asked to mail particulars to the Secretary, that the names may be included with others in the "In Memoriam" contained in the Annual Proceedings.

The Financial Statement of the year is as follows:

RECEIPTS

June 21, 1915—Balances and New Memberships	$ 93.50
June 20, 1916–From Membership and Badge Book	5720.75
Advertisements	
Sale of Trade Term Labels	15.60
	$5829.85

DISBURSEMENTS

Paid Peter Youngers, Treasurer	$5572.10	
Balance on hand	257.75	
		$5829.85

In conclusion, gentlemen, let me assert that there can be no doubt as to the future of this Association. Having broken the spell of traditional routine, which has had so tight a grip upon the organization, the new Constitution beckons members to a higher plane of thought and of action, and it is no fanciful theory that we pronounce when we say that the American Association of Nurserymen is to become the synonym of all that is best in administration and in future development along lines that shall bring the orders of the consumers of your products to your desks in larger numbers.

As a result of the more extended publicity that shall be given concerning the value of those products from both the aesthetic and the practical points of view, and because, also, of the more dignified position your honorable occupation shall come to occupy in the estimation of your patrons.

Co-operation, liberally and cheerfully given by each member to your executive officers, will make possible all that we have herin presumed to predict.

JOHN HALL, *Secretary.*

France and England are passing laws prohibiting the importation of plants into their respective countries. They may have good reason for it, and, perhaps due to the fact that the United States does not export very great quantities Uncle Sam is not very much interested. At the same time it would be quite in order for this country to pass similar laws. It may also have a tendency to extend and develop the home industry.

EXHIBITS

The exhibition hall at the convention opened directly off the hotel lobby and was extremely well patronized.

The following is a list of exhibitors:

National Nurseryman, Hatboro, Pa. *Trade Publication.*

A. B. Morse, St. Joseph, Michigan.—*A fine display of nursery catalogues.*

A. L. de La Mare, Printing and Publishing Co., 438-448 W. 37th St., New York.—*Horticultural Books and Catalogues.*

F. W. Watson & Co.,Topeka, Kansas.—*Apple stocks showing the different grades.*

Vincennes Nurseries, Vincennes, Indiana.—*Cherry Trees.*

Christy Color Printing and Engraving Co., Rochester, N. Y.—*Splendid samples of color work.*

Rochester Lithographing Co., Rochester, N. Y.—*Color work.*

Sherman Williams, Pullman, Ill.—*Insecticides.*

Oshkosh Excelsior Manufacturing Co., Oshkosh, Wis.—*Excelsior.*

Thomas B. Meehan Co., Dresher, Pa.—*Raffia.*

The Benjamin Chase Co., Derry, New Hampshire.—*Labels.*

American Fruits, Publication, Rochester, N. Y.—*Trade Publication.*

Dayton Fruit Tree Label Co., Dayton, Ohio.—*Labels.*

J. G. Harrison & Sons, Berlin, Md.—*Fine samples of Norway Maples, Apple Trees, Berberis, Privet and Colorado Blue Spruce.*

E. Gill Nursery Co., West Berkeley, Cal.—*Sample roses showing unusual strong growth.*

J. Horace McFarland Co., Mount Pleasant Press, Harrisburg, Pa.—*A miniature model of their "catalogue factory" where you could look through the windows and see the presses at work. Stereopticon views and samples of catalogues and color work.*

Bartlett Manufacturing Co., Detroit, Mich.—*Pruning Tools.*

W. A. Drummond, St. Louis, Mo.—*Books.*

Benton Review Shop, Fowler, Ind.—*A fine display of catalogues.*

D. Hill Nursery Co., Dundee, Ill.—*Evergreens in good assortment, both seedling and transplanted.*

Clinton Falls Nursery Co., Owatonna, Minn.—*Cashman Labor Saving Machinery.*

H. L. Reed, Louisiana, Mo.—*Patent Box Truck.*

THE NEXT CONVENTION TO BE HELD IN PHILADELPHIA

The next convention of the National Association of Nurserymen to be held in Philadelphia.

There was no opposition at all to Philadelphia. The selection seemed to satisfy everyone as not a single dissenting voice was heard.

TREASURER'S REPORT

Assets Show a Healthy Growth

Balance on hand June 3, 1915	$6660.64
Total Receipts	$12.608.84
Vouchers Paid	4.764.17
Balance on hand June 28, 1916	$7.844.67

CONVENTION NOTES

Many nurserymen were bewailing the fact that they had left such dirty nurseries at home, and when they spoke of home, weeds were uppermost in their minds.

"We got it!" was the smiling remark of Thomas B. Meehan, after Philadelphia was decided upon as the next meeting place.

Whatever may have been the sentiments on the liquor question of those who visited Schlitz' Brewery Establishment, they could hardly fail to be benefited by the object lesson in standardization and efficiency in producing their goods.

The "Dutch Lunch" so lavishly set out by the Schlitz Brewing Company for the visiting nurserymen was thoroughly enjoyed.

Things were so busy and serious at the convention that the Yellow Dogs all went a-hiding and the Baby Ramblers began to grow and blossom out.

John Watson tried to enlist for the Mexican War. "Not heavy enough, otherwise physically fit" was the verdict. By the enthusiasm displayed at his election to the Presidency of the National Association, he is a born leader and Uncle Sam missed the "makings" of a good officer.

Much favorable comment was heard about the program prepared by Lloyd C. Stark. It was so thorough it brought all phases of the nursery business before the convention for discussion.

Prof. E. R. Lake, when speaking of horticultural names, said that the Pure Food Law demands correct labelling of apples, and there is a tentative law under consideration to eliminate catalogues from the mails that do not comply with that requirement.

It was given out that Curtis Nye Smith, Esq., Counsel for The National Association and Allied Seed Trades, has under way the preparation of a digest of nursery laws of the various states.

Herewith find our check for $1.00 as renewal payment of 1 year's subscription to your valuable paper.

Send us your advertising rates and oblige.

Yours very truly.

F. W. Brow Nursery Co., Inc.

THE BABY RAMBLERS

The Milwaukee Convention was unique in that it was attended by an unusually large number of the younger generation in the Association. A younger element on whose shoulders the burden of the work of the organization must necessarily be carried in the future.

That they are showing the right spirit is made plain by the fact that they attended the sessions very conscientiously and showed interest in the deliberations.

They have formed an organization known as the Baby Ramblers, for the purpose of promoting a spirit of good fellowship, and to place at the disposal of the Association an organized body of young men who are willing and anxious to serve and work to the best of their ability.

The Baby Ramblers Club was formed at a dinner at which were present the following:

P. V. Fortmiller, President
Albert F. Meehan, Secretary-Treasurer.

Horton Bowden	B. J. Monahan
Wm. Flemmner, Jr.	Clarence G. Perkins
O. W. Fraser	M. M. Scarff
Gordon Hall	Clay Stark
J. Hale Harrison	Thomas Stark



Eight members of the "Baby Ramblers"
Back Row: Wm. Flemer, Jr., Horton Bowden, M. M. Scarff, B. J. Monohan.
Front Row: Paul V. Fortmiller, G. Hale Harrison, Albert F. Meehan, Clarence G. Perkins.

BULLETINS OF INTEREST TO NURSERYMEN

Published by the U. S. D. of A.

Muscadine Grapes. By George C. Husmann, Pomologist in Charge, and Charles Dearing, Scientific Assistant, Viticultural Investigations, Offices of Horticultural and Pomological Investigations. Pp. 28, figs. 29. Contribution from the Bureau of Plant Industry. April 1, 1916. (Farmers' Bulletin 709.)

For distribution in South Atlantic and Gulf Coast States.

The Rose-Chafer. A Destructive Garden and Vineyard Pest. By F. H. Chittenden, In Charge of Truck-Crop and Stored-Product Insect Investigations, and A. L. Quaintance, In Charge of Deciduous Fruit Insect Investigations. Pp. 8, fig. 4. Contribution from the Bureau of Entomology. April 28, 1916. (Farmers' Bulletin 721.)

Describes life history and habits of, and methods of control of this insect.

The Leaf Blister Mite of Pear and Apple. By A. L. Quaintance, In Charge of Deciduous Fruit Insect Investigations. Pp. 6, figs. 4. Contribution from the Bureau of Entomology. April 21, 1916. (Farmers' Bulletin 722).

For general distribution.

The Terrapin Scale: An Important Insect Enemy of Peach Orchards. By F. L. Simanton, Entomological Assistant, Deciduous Fruit Insect Investigations. Pp. 96, pls. 3, figs. 19. Contribution from the Bureau of Entomology. (Professional Paper.) April 22, 1916. (Department Bulletin 351). Price, 15 cents.

Describes life history, habits, enemies of, and methods of control for this insect, with report of investigations had at Mont Alto, Pa., in 1912 and 1913.

The Cherry Leaf-Beetle, A Periodically Important Enemy of Cherries. By R. A. Cushman, Entomological Assistant, and Dwight Isely, Scientific Assistant, Deciduous Fruit Insect Investigations. Pp. 28, pls. 5, figs. 9. Contribution from the Bureau of Entomology. (Professional Paper.) May 5, 1916. (Department Bulletin 352.) Price, 10 cents.

Give life history, habits, distribution, and methods of control of this insect.

The Oyster-Shell Scale and the Scurfy Scale. By A. L. Quaintance, In Charge of Deciduous Fruit Insect Investigations, and E. R. Sasscer, Collaborator. Pp. 16, figs. 3. Contribution from the Bureau of Entomology. April 26, 1916. (Farmers' Bulletin 723.)

Of interest to fruit growers generally.

MEETING OF THE SOUTHERN NURSERYMEN'S ASSOCIATION

The meeting of the Southern Nurserymen's Association will be held August 29 and 30, 1916, in Atlanta, at the Piedmont Hotel.

The following is the program as it is at present planned:

Mr. Beckley of the J. Horace McFarland Co., Harrisburg, Pa., will give an illustrated advertising talk, using a stereopticon. This will deal largely with ornamental stock.

Mr. W. F. Bohlender, Tippecanoe City, Ohio, will also present some slides, showing parks and other views.

William H. Kessler, Birmingham, Alabama, is going to talk on landscape work.

Lloyd C. Stark has agreed to give us a paper dealing with prices.

R. C. Berckmans will talk on Horticulture of Yesterday and Today.

John A. Young, Greensboro, N. C., will speak on commercial apples. He is an experienced orchardist.

Meredith P. Reed, Vincennes, Indiana, will tell how to grow cherries.

C. A. Simpson, Monticello, Florida, and B. W. Stone, Thomasville, Georgia, will handle the pecan situation.

Cheaper and More Productive Advertising

By E. H. Favor, Managing Editor, The Fruit-Grower, St. Joseph, Mo., Read at Convention og American Association of Nurserymen, Milwaukee, Wis., June 29, 1916.

CHEAPER and more produetive advertising," the topie assigned for my ten-minute period of this convention's time, is the very kind of advertising that all of us are seeking. To get close to this subject in the ten minutes available, is impossible, exeept in the way of a general outline of some of the essentials.

Cheapness Determined by Cost and Returns

In arriving at these esentials we might first ask ourselves what is meant by "eheaper" advertising? The cost of advertising takes into consideration the amount of money spent for the white space or whatever form of medium is used, and the value of this spaee to the advertiser is measured by the returns he gets. A medium that brings a return of $5 for every dollar spent is worth a good deal more than a medium that brings back only ten cents for the dollar, yet the outlay for each may be the same. Based upon the returns the former medium is by far the cheaper of the two.

Cost is Ratio of Space to Circulation

What determines the eost of an advertisement?

In publications, it is the size of the space in relation to the volume of the circulation. In sueh publieations as are most largely used by nurserymen, that is farm publications, the cost of the advertising space is based on what is almost a standard rate of ½ eent an agate line for each 1,000 eireulation. A publieation having 100,000 eirculation will have a rate of approximately 50 cents an agate line; a publieation having 200,000 eirculation will have a rate of approximately $1 an agate linc.

With that faet in mind, it is easy to see that buying space in the better class of farm publications, where this seale of rates is observed, becomes as simple a matter as buying postage stamps. The more money you spend the more circulation you get.



Forty-first Annual Convention, American Association of Nurs

The Value is Measured by Returns

But the cost of the space does not necessarily determine its cheapness or its value. Four inches of space in one publication of 100,000 eireulation may produce orders amounting to many times the actual expenditure for the space, while another publication having 100,000 circulation and supposedly reaching the same general elass of readers may not bring baek enough money to buy a postage stamp. Every firm that has ever done much advertising finds this to be the case, and on that account, to lessen the cost of advertising, the very first matter to eonsider is the seleetion of the medium to be used.

Selection of the Medium

This is a matter which must not be left to the smooth talk of the solicitor for the publication in question. It not infrequently happens that the poorest mediums have the most skillful salesmen as solicitors for their advertising spaee; and some of the best mediums are unfor-

tunate—or should I say fortunate?—in having poor salesmen. Where advertisers contemplate buying their own space, they cannot rely altogether on the "talk" of the solicitor, but must take into consideration:

(1) Their past experience with that medium;

(2) The experience of other advertisers in that medium;

(3) The nature of the commodities appearing in that medium's advertising columns;

(4) The editorial appeal and

(5) The class of people who read that particular publication.

Time will not permit the consideration of these several factors in detail, but we must pass to the second vital matter that has a very large share in determining the cheapness and productiveness of an advertisement.

The Copy and Layout

This second matter is that of the advertisement itself. An advertisement is made up of "copy," or the language composing the advertisement; and the "layout," or the manner in which the words of the advertisement are disposed in order to attract attention and put across the message.

It is universally considered that an advertisement, to be productive, must be attractive, it must be read, understood, believed and must stimulate action. Just how to make an advertisement do these things, just how to write the copy that makes the ad pull and to display it so that it will get the readers' attention, is the snag that trips more advertisers than any other one thing.

Nursery Ads Are Poor

When we look through the advertising columns of any publication in which nursery advertising is found, it is very noticeable that the larger number occupy about an inch of space, and amount to but little more than a business card, or contain some such bald statement as: "Our new catalogue is ready. Send for a copy." Perhaps the ad may say, as an ad of one member of this association did say: "I have over three million strawberry plants and plants of every kind but Gandy on my list. I want your order Mr. Fruit Grower."

In these little ads, it is quite noticeable that the name of the nurseryman or firm stands out in bold letters, big enough and bold enough usually, to please the most critical. But such is not good advertising, and I dare say that most nurserymen who advertise in this manner declare that advertising is only an expense.



n, Milwaukee, Wisconsin, June 28th, 29th and 30th, 1916.

If you are in doubt as to the most profitable size ad to run, why not follow the suggestion of a well known advertising man for the preparation of advertising copy? Tell your story as concisely as possible, with all of its salient points, then put it in whatever space may be required to display it properly. If you feel your appropriation is limited, you will find it more profitable to use a few papers with copy carrying a real salesmanship message about your product, than to use a few sentences or an ordinary business card in a big lot of papers. An ordinary business card may be good enough for out-of- season advertising, but never for in-season business getting. If you want a single rule for telling your advertising message concisely and clearly, then first put in black and white what you would say to anyone whom you were trying to sell in person. If you do

not have the time to do this yourself, then follow the suggestion given further on in this paper.

As a matter of fact, such business cards are a relic of the days of nightmare advertising when space was bought for no other apparent reason than to gratify the desire of the advertiser to see his name in print, and to afford him the comfortable sense of having done his duty. To such advertisers, it seems the fact never occurs that the space represents just so much white paper, and that what he chooses to put into that space is the thing that brings or fails to bring the orders. Around the word "advertising," many nurserymen spin a veil of mystery. They overlook, or are unconscious of the fact, that advertising is salesmanship on paper, or else they dare the advertisement to produce results.

The Publisher's Position

Nursery advertising borders on technical advertising, and the time will soon come when publishers of mediums largely used by nurserymen will refuse to accept these business cards, just as the publishers of trade papers have refused, or rather have required their patrons to use advertisements that have a better chance to produce than do mere business cards.

Publishers to be successful must make a profit in their business the same as you, and they cannot make a profit when their advertisers fail to obtain satisfactory returns from the space they buy. A few nursery firms have felt the value of better copy and have passed beyond the period when their advertising, as compared to the total of all advertising, could be likened to a small frog in a very large pond. They are putting real meat into the space they use and attractiveness into their layouts.

Before the time arrives when publishers will insist upon their nursery patrons making the best possible use of the white space they buy, it is now high time that the nurserymen beat them to it. How can this be done? The answer is the solution to the problem of cheaper and more productive advertising.

Salesmanship on Paper

Advertising has come to be a business in itself, and a big business, but it is essentially a branch of the sales department, as it must serve as the "scout" that goes out and rounds up the trade and drives it your way. In other words advertising is nothing more than a selling force. If you would employ it most effectively you will couple it up to your present selling plan or revise your selling methods to connect with your advertising scheme. Advertising is coming more and more closely to the period in its development where well defined rules, even "laws" are being developed. And because of its close approach to a profession, there is little more reason why the average advertiser should attempt the preparation and placing of his own copy than there is for him to attempt arguing his own case in court, or prescribing the medicine to be given to a sick man.

The Skilled Copy Writer

It is the business of the professional advertising man to write advertisements, and in the majority of instances, it would be better for the nurseryman to let some professional advertisement writer prepare and place his copy, rather than to attempt doing it himself. Such work can be done better by men who make it their business than it can by the inexperienced outsider. And, as I view the situation, it seems to me to be far easier to lessen the cost and increase the productiveness of advertising by letting the skilled copy writer prepare the advertisement than to attempt it yourself.

The one great drawback that all advertising men meet in their efforts to interest advertisers into employing better advertising methods, is the feeling on the part of the advertiser that on account of his close familiarity with his business, he is the only one that can tell others about his product.

Don't fool yourself by this opinion. It is true that you know more about your business than an outsider. But right there is your weakness when it comes to preparing sales appealing advertising copy. As a matter of fact, you are too close to your own business to get a true perspective, and to see your real market or your real sales opportunity. There are advertising agencies in many of our cities who know more about the advertising possibilities of the nursery business than do most of the members of this association. And, since they are not connected with the trade, they are not prejudiced by the little practices and petty jealousies that exist. They stand on the mountain top where they get the broader view of situation.

Advertising of the present day is the work of the specialist, and one individual cannot at the same time be a specialist in salesmanship, office and field management and advertising. Therefore, I would say, that since advertising requires special qualifications and training, it is far better for the average nurseryman to turn this sort of work over to the specialist who will work in closest harmony with you. Then, let that specialist prepare the advertising, the catalogue, the sales letters and circulars, and work in co-operation with your sales department.

This plan, it seems to me, is very much more certain to lessen the cost of the advertising and increase its productiveness than where the average nurseryman prepares and places his own copy. Time does not permit amplifying upon this conclusion and of supplying examples from the experiences of advertisers who have done so. Consequently I can only recommend that you give this plan a trial.

All advertising to be successful must be backed up and supported by the right kind of stock. The customer must be supplied with exactly the kind of stock described in your advertising matter; he must be supplied quickly and his order must arrive in first class condition. In other words, your advertisement must be truthful and must be backed up with good stock and real service. These are "big" little things that go a long, long ways in making advertising cost less and produce more, for in the language of an old proverb, a "pleased customer is the best advertisement."

The Government Crop Report of June 1st gives a forecast of 72,200,000 barrels of apples against a final estimate of last year's crop of 76,670,000 barrels.

Peaches 42,400,000 bushels against the final estimate of last year of 64,218,000 bushels.

Who are Entitled to Receive Trade Lists?

By John Dayton, Painesville, Ohio, Read at the Milwaukee Convention

PERHAPS, if there is one thing more than another that we need in our rather demoralized nursery business, it is an authorative body to publish "Who's Who" for the trade and compel all of us to accept its findings.

What is a trade list? I should say a list quoting lowest prices to legitimate nurserymen, who are engaged in the trade and buy stock to sell again at trade or wholesale prices. These nurserymen are the foundation of the nursery business, the superior of the national and state organization the producers of the stock that makes the wholesale and retail business possible; they carry the accounts and notes which tides many a poor man over his poor season; they finance the movements and committees which give the trade a standing in the eyes of the Government and business world, and helps through, or endeavors to kill the good or bad laws, introduced in our national and state legislatures.

Who receives the trade list? Nurserymen, dealers, florists, agents, landscape architects, state and private institutions, ineluding parks, cemeteries, etc., department stores, schools, and almost any private planter who wants to buy or says he does, a fair amount of stock, and has had a little experience in working the trade.

How do you make up, or keep corrected your mailing list? Does your offiee boy, or the newest stenographer have charge of what ought to be about as closely watched as your bank aeeount. Are names entered indiscriminately without investigation, and lists sent to men who long ago have retired from business, or to men who have gone to a climate where trees do not grow, even if well mulehed? How many trade lists, do postmasters, in the kindness of their hearts, hand out to parties who think they may be interested in them, but not entitled to them?

A few years ago, Ohio examined and gave nursery certifieates free, and issued, if I remember correctly, nearly 400, largely to men who have from one-eighth to three acres of small fruits, and all of these names were promptly eopied into nurserymen's directories and are still there, although when the state charged a minumum fee of $5.00, the number dropped considerably more than half.

I have seen in the office of more than one florist, who has a range of greenhouses, and handles tender stock exclusively, doing nothing with trees, shrubs, etc., a drawer full of nurserymen's price lists; they come regularly every season, although no order ever goes back. We used to receive many, and do still occasionally receive orders from retail buyers, stating their florist, Mr. Brown, to whom they had applied for trees, had handed them our priee list, and told them to order direct, the list always being the wholesale priees.

I believe that every one growing stock in quantity for the trade, ought to issue a trade list, mailed only to men actively engaged in growing nursery stock, and selling it together with what he buys, to the trade for reselling, and that just as far as their orders will justify we ought to bill at lowest quantity rates. That we ought to issue a wholesale list, quoting by the ten, hundred and thousand, when stock will justify, holding the prices strictly according to quantity ordered, with usual packing charges, and that wholesale prices ought to be high enough to allow the legitimate nurseryman to buy at trade prices and to break even, or make a little profit in selling at wholesale rates. That if we are growing greenhouse stock to sell to florist's trade we ought to send them a list, quoting only the stock they handle and are likely to buy. Then if we sell at retail, our lists according to the way we do business, but in all cases retail prices should be high enough to allow the wholesaler to sell at a fair margin of profit.

From what little I know of the organizations and the way other lines of business are conducted, the above are responsible propositions, and in fact almost indispensible if we would make our business a self-supporting one. Would the majority of the nurserymen adopt and live up to such plans? Not in a thousand years, judging from our past experience.

Most of us are growers, wholesalers and retailers, and if not wholesale seedsmen and florists, mean to be as soon as possible, and according to our particular trade, education, circumstances, or environment, see things at a little different angle from the other fellow. While many of us are getting so that we talk co-operation, when we come down to actual practice we are ready to take all we can get, but not ready to do the giving that is necessary to make any co-operation effective.

Take landscape gardeners, for instance; like many nurserymen, some of them are willing to do business in any old way that they can get it, but the majority of them hold together and do business along well defined plans and control the buying of an immense amount of stock, mostly ornamental, every year. I take off my hat to them. Judging from results, they have an efficient organization that means something.

I have cited landscape gardeners, and we could go through a long list and find fault with conditions, but we all know them, and who is going to make us see alike?

One of the largest growers of ornamental stock, who has made a success of his business, issues only one list, makes no distinetion as to buyers, and if they want 500 trees they get 1000 rates, 25 trees 100 rates, etc. Planters who bny once in a lifetime, nurserymen who buy every year, he says the only proper way is to have one priee for everybody, according to the quantity they buy, except that it is permissible to sell our surplus to the trade at a cut rate on quotations.

Do not want to get into the question of cost of nursery stock. What about overhead expense? We all know that it is an impossibility to make planting and budding lists, one to six years in advance, even if we are honest, we will have some surplus varieties and have to buy others. It is not a legitimate item that we add to our overhead expense account a certain per cent, every year to cover the cost of growing stock, which changing mar-

ket conditions render of no value, and base our selling on figures which include at least approximately all known items.

We talk about the laws of supply and demand, and, of course, it is true, that they control prices to a large extent, and it is equally true, that a large part of our stock is sold at a lower price than the law demands.

Take an item or two from a few handy lists. American Elms, 1¾ to 2 in., 35c, 60c, 65c, $1.00. Silver Maple, 10 to 12 ft., 1½ to 1¾ in. in the East we use 1¼ to 1½ in., largely for this grade, 12c, 40c, 20c, 60c, 65c. These are all printed trade price lists of good, responsible firms for fall of 1915. Is it any wonder that business men who get such tremendously varying quotations on what is supposed to be exactly the same stock, think "there is something rotten in the State of Denmark?"

Does the making of low quotations move stock? Would there not be for instance, just as many Elms and Maples sold and planted at a living profitable price as there will be at prices below cost of producing and handling? Even if we have a surplus, would it not be better to get a fair rate for what we sell and consign the balance of our too heavy plantings to the brush pile?

When you commence sending your lists out freely to poor farms, city parks, hospitals, and so on, you have opened the gates. These lists are in the possession of everybody and when a man wants stock he gets it at pratically wholesale prices. Wholesalers are selling retail to the schools, and to the large cities at practically wholesale cost prices, because the trade lists are out. I believe that is the starting point, because we open the gates and there is no stopping it when once opened. When bad business principles are started, we have to stand by and see the destruction of good business.

If letting down the bars and selling our surplus at any price to secure some of our competitor's trade effected only our own pockets, it would not make so much difference, but what hurts one to a greater or less extent hurts all. The fellow who loses an order from your cut prices this time, cuts still lower at the next opportunity. No one knows what goods can be bought or sold for. We are training our customers and ourselves to know the only way to buy is to send around lists for prices with reliance on the fact that most of the quotations will be at cut rates. The man who in summer or early fall, buys car load lots to store for his spring trade finds his customers deluged in the spring, offering stock in any quantity, at less than he bought of the same parties in car load lots. Little dealers who buy from $25.00 to $100.00 at a time, walk into your office with a pocketful of surplus lists, offering them stock at the same price you have to pay. Park and Cemetery superintendents and city buyers all name lowest trade prices and get special quotations if they want to buy in quantity. Orchardists and planters are nearly all educated up to the fact that sending in a list for quotations means cut prices from the retail list. Even the Southern Darkey, who wants one-fourth pound Gumbo and four Red Geraniums, and the small lot owner who wants $1.00 to $3.00 worth every spring are in ever-increasing numbers sending in their lists of wants, expecting a cut from regular catalog rates. Can you wonder or blame them, if we have no faith in the quality and worth of our own products? If we dare not fix a profitable price on our goods and hold to them, can we expect that buyers will not take advantage of the opportunities thrust upon them?

What do we find? Why, if the large growers cooperate to lift prices only to a fair basis and endeavor to eliminate cut-throat competition, it means that we are simply digging our own graves and making a market for the outside grower. That instead of being backed up by the trade, the cheap man is patronized. One of the leading nurserymen wrote me in response to quotations on a long list "You ornamental growers are all about alike in prices, but I have bought from others at about half your prices." Our talk is all right, but when we get down to business we forget our conversation. We hear at conventions and read in trade papers of the poor growers, the fence corner nurserymen, etc., who buy their stock, build up their business, keep themselves going ahead as long as their capital and creidt lasts, and then hunt up their successors. The large majority of this class would never get a start or be off in the trade, if some of our large handlers of stock did not buy his products and in order to save a few dollars on his purchase for that season, deliberately help along another competitor for his own and other's trade.

THE W. N. T. P. A.

A Husky Young Organization Fertilized With Welch's Grape Juice.

The third annual dinner of the Wholesale Nurserymen's Traveler's Protective Association was held in the "Badger Room" of the Hotel Wisconsin, Milwaukee, Wednesday evening, June 28th.

In the centre of the table was placed a magnificent bunch of one hundred Ophelia roses, kindly loaned for the occasion by the J. & P. Co. which, alas, for reasons which the reader will later surmise, were never returned to the rightful owners.

The Secretary called the roll. Not a soul was missing. Not a glass turned down. A spirit of expectancy, of something thrilling yet to come, pervaded the atmosphere.

Furtive glances were constantly cast towards the diaz, upon which the orchestra was already seated, but, alas, screened from view by an exquisite curtain of royal purple. The duty of engaging the orchestra had been left to "Sunny Jim" Fraser and he had promised some surprises.

The members were standing back of their chairs, waiting, waiting, when lo, as the hour of ten chimed forth, the curtains were swept aside, and behold, on the diaz sat nine lovely, smiling maidens, "nine, count 'em" "Miss Rito Mario's Ladies Orchestra."

Like a Japanese golden-banded lily, bending before the wind, Miss Mario bowed gracefully to President "Bob Chase" then, as she lightly waved her baton, the orchestra played that touching lullaby,—"Welcome to Milwaukee, the Home of Lager Beer."

The menu had been prepared by C. R. Burr, who is

recognized as a connoisseur on "eats" and proved to be all that one could expect under the circumstances.

THE MENU

President's address. "Chase Alabama Grown." R. C. Chase.

"Top Notch Barberry. Why are they so damm low?" C. R. Burr.

"The Quantity Stock. Nothing goes on the Brush Pile." F. J. Rippen.

"The Preferred Stock. We Prefer Yours to Ours. See our Exchange offer." C. H. Perkins, 2nd.

"How to get a Square O Deal." J. W. Fraser.



The Wholesale Nurserymen's Traveler's Protective Association. C. R. Burr, J. W. Fraser, Robt. C. Chase, F. J. Rippen, C. H. Perkins, 2nd.

"OUR MOTTO"

"We never tell. Protection always."

The following officers were elected:

R. C. Chase, President.
C. R. Burr, Vice President.
C. H. Perkins, 2nd, Secretary.
F. J. Rippen, Treasurer.
J. W. Fraser, Goat.

At the conclusion of the dinner, the meeting went into Executive Session, excluding all but the members *and* the Orchestra, in order that "Bob Chase," affectionately known as "Sifted Seed," might read his paper, entitled. "What I don't know about New York."

After coming out of the tranee into which "Bob's" revelation had thrown them, they closed by singing the following ditty, entitled, "Will we come or are we sent."

We'll go to Phil a del phia
For our next Annual Meet,
We've been there many a time before
And know it can't be beat.
There's "Kugler's" and the "Walton"
And "Willie Suey Sam,"
We will go and raise the diekens,
For "Meehan" says we can.
We won't forget the "Fairmount Inn"
We will try old "Riverside"

(at this point, the "Bouncer" was seen approaching, and one of the cardinal principles of the Association, being "Safety First," the meeting adjourned to the "Free Ice Fund.")

THE NURSERYMEN'S SPECIAL

The speeial car, reserved to carry the nurserymen to the Convention, was due at the Central Railroad Depot at Rochester 5.20 p. m. Monday. It is customary for country people to be at the depot at least an hour before train time, and a few lone travelers from Philadelphia complied with the time honored custom, and spent their time admiring Rochester's new station, and incidentally looking for familiar faces or whiskers, a bright eye and a healthy tan, that supposedly bespeaks the nurseryman.

It looked to the lone travelers, a few minutes before train time, as if they would have to occupy the whole car themselves, but things do change these days. A nurseryman is just as likely to have manicured nails, and travel with a night shirt and tooth brush, and so it proved they were really there, but you could not tell them from regular travelers.

The car was comfortably filled, and it does not take long, when nurserymen get together and leave business behind, to get the fun going.

For genuine kindness and sociability, the nurserymen are "it." Now that liquor is tabood, the smokes are all they have left to emphasize their good feeling. Each had a pocket full, and they were all yours. It was very touching to see Mae accept a big one, with a green belly band, from Adolf and resignedly light it, after bidding farewell to his friends. But Mac's brain is active, he glanced at his wife and thought of the babies at home, and decided he did not want to die yet, any more than to hurt the feelings of the donor, so he quietly launched into a most interesting account of his travels in Japan. Weeds were forgotten, and all began mentally figuring when their profits would permit of a trip to the "Flowery Kingdom."

The genial "Jim" Pitkin wore an American flag, and what time there was to spare, he put in bewailing the faet "that now so many countries were at war there was no place for a peaeeable man to stay."

The party arrived about noon the day before the Convention opened and found a hearty welcome from those already there.

PEACH LEAF CURL

The eold wet weather has been very conducive to the prevalence of Peach Leaf Curl in the lake districts and other northern sections. Many orchards are badly affeeted.

In the south the disease is almost unknown. Lime-sulphur spray applied about two weeks before the buds begin to grow in spring is said to be an effectual preventative.

The National Nurseryman

Established 1893 by C. L. YATES. Incorporated 1902
Published monthly by
THE NATIONAL NURSERYMAN PUBLISHING CO., Inc.
Hatboro, Pa.

Editor .....ERNEST HEMMING, Flourtown, Pa.

The leading trade journal issued for Growers and Dealers in Nursery Stocks of all kinds. It circulates throughout the United States, Canada and Europe.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900

SUBSCRIPTION RATES

One Year in Advance $1.00
Six Months ..... .75
Foreign Subscriptions, in advance $1.50
Six Months $1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested by the Business Manager, Hatboro, Pa.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

Entered as second-class matter June 22, 1916, at the post office at Hatboro, Pennsylvania, under the Act of March 3, 1879.

Hatboro, Penna., July, 1916.

THE CONVENTION

The first meeting of the re-organized Association revealed a force that is going to make itself felt in the nursery world. It was the most business-like, and smooth running that has ever been held and conveyed the impression of a set purpose rather than evanescent enthusiasm.

That such a drastic change could take place without a little friction and creaking could hardly be expected. The fact there was so little, shows very clearly the management has truly gauged the general sentiment of its members, that the time was ripe for something to be done.

The plenary powers of the Executive Committee insures action and efficiency, and the masterly way in which it took up the questions of such vital interest to the nursery business and presented them to the convention for endorsement shows they picked the right men for the job.

The new Association seems to be forming its policies along the lines of successful organizations in other trades. By having legal counsel to advise and guide, it will be able to avoid the pitfalls that wreck so many well meant efforts in co-operation and control.

The two great divisions of the nursery business are Production and Distribution. In regard to the former the Association is aiming to guide or control as much as possible, standardize its goods and methods and do what it can to bring order out of the present chaos.

Even if it is only partially successful the effort is worth while.

It is however, in the Distribution that the Association can do its most important work. There may not be unlimited capital to exploit and develope the market, but they have something infinitely better. "The dormant love of growing things." It is being encouraged in the schools, fostered by the government, written about, lectured about and encouraged in many altruistic ways, and as in the case of the landscape architect, landscape gardener, retail nurserymen, tree salesmen and the horticultural papers from somewhat selfish motives.

The big job the Association has on hand is to capitalize and develop this tremendous asset.

To do this the maximum amount of both financial and moral support of each member will be needed. One has only to read President Welch's address to realize the wide scope of the work the Association has undertaken.

A NATIONAL FLOWER

Sporadic attempts to have a National Flower adopted are constantly springing up. The one being agitated at the present time is the Mountain Laurel, *Kalmia latifolia*. While this truly a beautiful flower, it is not representative enough to be national as it only grows in certain sections and is quite unknown in others. Of course, the same may be said of almost any other flower that might be considered, as our country is so large and there is such a varied climate that the floras are very distinct from one another. At the same time a plant that was more generally known, such as the corn, Oak or Pine tree, would at least be more appropriate than one such as the Mountain Laurel.

While perhaps it is wise to keep agitating the subject, there is no immediate hurry for adopting one, and who knows but what the present Mexican turmoil might bring the matter to a climax.

GOOD WORK IN THE SOUTH

Concord, Ga., June 30, 1916.

National Nurseryman,
Flourtown, Montgomery County, Pa.

Gentlemen:—

A problem that has recently faced the nurserymen has been the growing activity of County Demonstration Agents, acting under the United States Department of Agriculture. Their plan appeared to be to find a cheap nursery, or some place where the trees of the smallest grades and cheapest types might be secured at a wholesale rate, and then advertise in the papers, and in public addresses, advising the purchase of the cheap stock. This sort of work was done in South Carolina, and in other states, and to the disadvantage of nurserymen who grew first class stock and sold at a fair price. It appeared to the public to carry the indorsement and backing of the United States government and put all other nurseries at a disadvantage.

Through our senators and our representatives in congress, we made strong protest, and urged that this practice of the County Demonstration Agents be discontinued. Our fight was successful, and through the Secretary of Agriculture and the Director of the States Relation Service, this practice of handling nursery stock has been discontinued, and the South Carolina officials who were most prominent in this movement have, we are advised by the department at Washington, been transferred to other duties, and orders have been issued to discontinue that sort of work.

We understand that the County Demonstration Agents

in other states have been advised by their superior officers, in relation to this matter, which will make an end to what had begun to look like a hard problem for the nurserymen.

We nurserymen can stand the competition that we meet, from other nurseries, and get along all right, but when your Uncle Sam steps in and takes a hand, it makes a hard proposition for us to meet.

Yours truly,
SMITH BROS. NURSERY CO.

BOOK REVIEW

"PRACTICAL LANDSCAPE GARDENING"
By Robert B. Cridland

At last a book on Landscape Gardening that is all kernel, where the author has neither borrowed from others nor felt it necessary to hide a lack of practical knowledge by flowery or vague language. It is basic, simple, direct and so thoroughly practical as to inspire to action, as well as desire.

Nearly everyone with an artistic sense knows that a curved line is more attractive than a straight one, but Mr. Cridland shows where they may be used correctly as applied to walks, approaches, etc.

It is a common saying that an architect cannot talk without a pencil, and Mr. Cridland is evidently not an exception, much to the reader's profit. The drawings, plans, and sketches are very numerous, ably done and clearly illustrate the point intended. Measurements and proportions are given.

The feature of the book that will appeal most to nurserymen is the evident thorough knowledge and familiarity with plants. So many landscape men, while perhaps masters in design and construction, are weak in their knowledge of the living pigments they use.

The work is fittingly dedicated to Joseph Meehan, Eminent Horticulturist, adviser and friend, by the author.

A. T. De La Mare, Printing and Publishing Company, No. 438-448 W. 37th street, New York, are the publishers and are to be congratulated on this fine piece of work of the book maker's art.

Technically correct, unpretentious yet beautiful, conveying just the proper proportion of information on its subject that will enable those interested to improve their grounds.

Price $1.50, Postpaid $1.65.

LIPPINCOTT'S FARM MANUALS

PRODUCTIVE ORCHARDING
By Fred C. Sears, Professor of Pomology, Massachusetts Agricultural College.

Edited by K. C. Davies, Ph. D. Price $1.50 net.
Productive Orcharding, by Fred C. Sears, Professor of Pomology, Massachusetts Agricultural College. Edited by K. C. Davies, Ph. D. Price $1.50 net.

An authoratative work on the subject that inspires the reader with confidence and courage, as Professor Sears evidently knows what he is talking about and how to convey his own knowledge and experience to others.

The book covers every phase of Orcharding in the most practical manner and is both a guide to the beginner and a consulting specialist to the practical orchardist.

A fine work.

PRODUCTIVE POULTRY HUSBANDRY
By Harry R. Lewis, New Jersey Agricultural Experiment Station.

Price $2.00 net.

There are many books written on the subject of poultry but there cannot be many that cover the field in a more thorough and practical manner.

It is easy to see the author is practical, an expert and an enthusiast on the subject, and the work he has produced is one that is just as valuable to the large investor or commercial poultryman as it is to the amateur who just keeps a few chickens for his or her own use.

PRODUCTIVE BEE KEEPING
By Frank C. Pellett, State Apiarist of Iowa.

Price, $1.50.

Read this book and you will want to keep bees. Nearly everyone who has the facilities likes to keep poultry and there is no reason why bee keeping should not become more general. They are just as profitable and no greater care.

The author is a master on the subject and gives his own knowledge as well as the experience of others in a very clear and able manner.

Galloway Brothers & Company, Waterloo, Iowa, have planted 80 acres of the best Iowa land in young stock. This, with their contracts with other growers in different parts of the country will give them a fine stock with which to supply their customers.

Their business is mainly carried on through catalogue but they will have quite a little stock which they expect to dispose of to the trade. They will be constantly on the lookout for certain lines of young stock for lining out.

They grow a general line of hardy stock, ornamental shrubs, trees, also fruit trees, small fruits and evergreens.

They expect to build a storage cellar and packing house this summer and hope to get it completed for use by the fall.

"Please send the July number, as I cannot miss any."
K. E. DE WAAL MALIPY,
Ridgewood, N. J.

Martin Frissel, Muskegon Heights, Mich., says:—"Of course, I want the National Nurseryman again."

Women of The American Association of Nurserymen

A New Organization to be known as The Women of the National Association of Nurserymen

The nurserymen at the convention did not attend to the ladies enough. The result is a new organization, which will enable the men to bring their wives, sweethearts, sisters and mothers to the convention and know they will have a good time while the business of the meeting is being attended to.

They organized under the following constitution:

THE NAME OF THIS ORGANIZATION shall be the WOMEN OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

The object shall be:

First: to further the personal acquaintance among its members.

Second: To promote sociability among its members.

Third: To arrange to see the different points of interest to the best advantage, in the cities in which we may meet.

Fourth: To promote the interest of the women in the work of the American Association of Nurserymen.

The dues shall be One ($1.00) Dollar, payable each June 1st or not later than convention time, and $1.00 for each guest participating in the entertainment provided by the committee. This sum will entitle her to all privileges of the members of the organization.

The following is a list of officers and charter members:



Mrs. W. C. Reed, Vice President *Mrs. E. E. May, Treas.* *Mrs. E. S. Welch, President* *Mrs. E. R. Taylor, Secretary* *Mrs. F. W. Watson. Cor. Sec'y.*

Mrs. E. S. Welch, Shenandoah, Iowa, Pres.
Mrs. W. C. Reed, Vincennes, Ind., V. Pres.
Mrs. E. E. May, Shenandoah, Iowa, Treas.
Mrs. E. R Taylor, Topeka, Kan., Sec'y.
Mrs. F. W. Watson, Topeka Kansas, Corresponding Secretary.
Mrs. George Winter, La Salle, Ill.
Mrs. A. J. Cultra, Onarga, Ill.
Mrs. Martha Pinney, Sturgeon Bay, Wis.
Mrs. E. P. Bernardin, Parsons, Kansas.
Mrs. E. F. Rowe, Harrisburg, Pa.
Mrs. T. J. Ferguson, Wauwatosa, Wis.
Mrs. Wm. Sadler, Bloomington, Ill.
Miss Edna Ferguson, Wauwatosa, Wis.
Mrs. Wm. A. Tamblingson, Fort Atkinson, Wis.
Mrs. Alva W. Brown, Beloit, Wis.
Mrs. C. A. Bennett, Bobbinsville, N. J.
Mrs. Frank Custer, Normal, Ill.
Mrs. W. N. Scarff, New Carlisle, Ohio.
Miss Onieta Vandervort, Normal, Ill.
Mrs. B. J. Vandervort, Normal, Ill.
Mrs. John J. Winter, La Salle, Ill.
Mrs. F. E. Schiffert, Fredonia, N. Y.
Mrs. Geo. H. Whiting, Yankton, S. D.
Mrs. J. McHutchison, Jersey City, N. Y.
Mrs. R. C. Stoehr, Dayton, Ohio.
Mrs. Rice, Geneva, N. Y.
Mrs. T. B. Meehan, Mt. Airy, Phila., Pa.
Mrs. Orlando Harrison, Berlin, Md.
Mrs. Earl D. Needham, Des Moines, Iowa.
Mrs. Henry B. Chase, Chase, Ala.
Mrs. Oliver N. Kilham, Manchester, Conn.
Mrs. T. J. Dinsmore, Troy, Ohio.
Mrs. P. Bollander, Tippecanoe City, Ohio.
Mrs. E. A. Henby, Greenfield, Ind.
Mrs. R. S. Hartwell, Dixon, Ill.
Mrs. T. P. Oliver, Topeka, Kansas.
Mrs. C. M. Peters, Salisbury, Md.
Mrs. W. F. Allen, Salisbury, Md.
Mrs. J. W. Hill, Des Moines, Iowa.
Miss Fannie Knapp, Rochester, N. Y.
Mrs. M. B. Fox, Rochester, N. Y.
Mrs. Peter Youngers, Geneva, Nebr.
Mrs. G. A. Maisbal, Arlington, Nebr.
Mrs. Harvey Marshal, Arlington, Nebr.
Mrs. W. P. Stark, Neosho, Mo.
Mrs. Oliver W. Fraser, Huntsville, Ala.
Mrs. H. D. Simpson, Vincennes, Ind.
Mrs. C. H. Weeks, Lyons, N. Y.
Mrs. A. L. Smith, Fountain City, Tenn.
Mrs. J. H. McFarland, Harrisburg, Pa.
Mrs. George Parker, Fayette, Arkansas.
Miss Florence Hill, Dundee, Ill.
Miss Alice Clay Watson, Newark, N. Y.
Mrs. John Watson, Newark, N. Y.

Danger Ahead

By J. G. Sanders, State Entomologist of Wisconsin and Secretary of the American Association of Official Horticultural Inspectors. Read at the Milwaukee Convention of the American Association of Nurserymen

THE existence of a serious calamity in the form of a plague of disease in any district or community calls the attention of the inhabitants to the factors resulting in the importation, the cause, the nature, the results and the methods of eradication. Likewise, the person, board or other body which finally controls such a serious situation always receives greater praise and attention from citizens than the person who may have labored his entire life in an attempt to prevent the introduction and dissemination of this same calamity.

Therefore, it has been common experience that one who remedies a serious condition receives more attention and commendation rather than one who seeks to prevent a serious condition of affairs by the issuance of warnings.

For this reason I wish to bring to your attention a warning with the wish that it be given serious and thoughtful attention at this time, before it is too late.

You can imagine horticulural conditions in the United States in the absence of both insect and plant disease pests. You know in part the conditions which now exist, since many dangerous enemies of plants have been introduced along with many other species of lesser importance. My purpose is to call to your attention some of the enormous destruction which has occurred in the past few years by introduced plant pests, and I will ask of you after the review,—is it worth while?

The White Pine Blister Rust has been discovered in at least eight of the eastern states of the Union, and, although a comparatively new pest, one with which the most of you are not familiar, its appearance and dissemination in the states should arouse the greatest alarm and should incite us to drastic measures for control. Ignorance of the destructive nature of this and other diseases does not ameliorate the condition or lessen the danger. I appeal to you to listen attentively to the warnings and the recommendations of the scientific men of this country who are working for your interests. They know the nature of these diseases, the readiness with which they can be disseminated, and the probability of control by drastic measures. I recommend that you use your strongest influence to aid these men whose duty it is to control these diseases and pests in their several domains. Unfortunately, in some of the eastern states little was thought of the danger which might result from the introduction and establishment of this White Pine Blister Rust. Consequently, the measures for control that were carried out were not sufficiently severe nor complete, with the result that the disease is spreading.

When the Cotton Boll Weevil first appeared in Texas on the American side of the Rio Grande, an entomologist recommended that the growing of cotton be prohibited in the zone surrounding the infested area. His recommendation was received in the nature of a huge joke, with the result that no action was taken. A map prepared by the U. S. Department of Agriculture, showing the successive annual advances of the Cotton Boll Weevil, which now covers the majority of the cotton-growing area, is mute testimony of the good judgment of this entomologist and the poor judgment of the Texas legislature. Hundreds of millions of dollars loss has resulted from the Cotton Boll Weevil invasion from the south.

Turning again to the plant disease side, the Chestnut Blight is already known, although it has been established in this country during a comparatively short time. The Chestnut Blight has doomed the native chestnut in America and this tremendous loss has resulted from the introduction of a few comparatively worthless trees from China.

The calamity which has visited the citrus growing regions of the Gulf states in the form of the Citrus Canker is appalling. Hundreds of thousands of dollars worth of valuable citrus groves are being destroyed and a tremendous amount of money is being expended for inspection, control and eradication work. This loss is a result of the introduction of a few comparatively worthless citrus trees from the oriental region. Again, I ask you, —does it pay?

The San Jose Scale has almost become a family topic of discussion, and may be credited as the cause of the greatest amount of horticultural legislation enacted in this country. We will never accurately determine the appalling losses resulting from the introduction of this tiny insect pest, another introduction from the oriental region.

The Gipsy Moth and the Brown-Tail Moth, as yet largely confined to the New England states and a portion of Canada, will entail such losses ultimately that figures will not accurately represent them. When we consider that in the state of Massachusetts approximately one million dollars is being spent each year for control work of various kinds for these two pests, we should stop to think of the tremendous good which might be accomplished with one million dollars in constructive work for the common good.

The Elm Leaf Beetle, that obnoxious pest of the beautiful elm shade tree, is gradually spreading throughout the eastern states, working its way westward and causing a damage which cannot be estimated with any accuracy. Elm trees left to the mercy of this insect without remedial control are seriously injured, while the cost of treatment of these large, beautiful trees is enormous.

The Pine Shoot Moth (*Evetria bouliana*) has become too widely established in some of the eastern states and bids fair to cause immense destruction unless very active measures are taken for its control. This insect was introduced on pines from Europe, which might fully as well have been grown in this country.

Many other instances of destruction to horticulture by introdueed insect pests and plant diseases might be cited.

As a matter of faet, probably 75 per eent. of the important economie pests have been introdueed from foreign countries largely through aeeident or earelessness. Some of these are so insidious that they might easily pass the most eareful inspeetion. On this account we believe that the most rigid inspeetion is not satisfaetory in every way.

The only method by which plants should be introdueed in this country is through an offieial department whieh eould grow the plants and re-produee them under quarantine for a reasonable period of years until all danger is past. Only by this method can some of the insidious plant diseases be detected.

At the last meeting of the American Assoeiation of Offieial Horticultural Inspectors held in Columbus, Ohio, January 1, 1916, the Assistant Entomologist of New Jersey offered a report on "Introdueed Insect Pests Reeently Established in New Jersey." This list ineluded more than twenty speeies of insects whieh have been imported and recently have beeome established in that state. It is true that some of them have not attained great economic imporanee at this time, but if history runs true, some of these may ultimately beeome a tremendous ealamity to certain plants.

I am asking this representative body of nurserymen,—leaders of hortieulture in Ameriea, to eonsider carefully and thoughtfully the tremendous problems whieh confront us in the eontrol of the inseet and plant disease pests which already exist in this eountry, and I ask you to eonsider more earefully the ealamities whieh may result in further importation of horticultural pests. I wish that each of you could see this problem from the standpoint of the entomologist and plant pathologist, who, like physieians and surgeons, have made a life long study of these partieular branehes of biology, and that you would beeome aroused to the dangerous situation in which we are constantly being plaeed by the miseellaneous introduction of horticultural produets.

The losses aecruing from the introduction of a single disease, sueh as the Chestnut Blight, are infinitely greater than the entire value of plant introduction into this country up to the present time. I sincerely hope that the time will eome when this eountry will take the steps whieh have been taken by Germany, Austria, Italy, France and other European countries, whieh prohibit absolutely the importation of the majority of known hortieultural produets.

The great European war, the greatest of all time, has awakened this eountry to the fact that it has been depending unneeessarily, to a very large degree, on foreign commerce, and foreign produets. I wish that some great power would impress this body with the seriousness of the important situation. I verily believe that if you men eomprehend the danger of introducing new and greater pests, you would support to the utmost all such measures proposed before the Federal Congress and the state legislatures for the elimination of this dangerous practiee. The co-operation of sueh a body of men would be of definite assistance to the praetieal scientific men of this eountry, who, through personal interest and love of their seienee alone, are pointing out these grave problems. As representing one of this seientific body of men, I wish to appeal to you strongly that some aetion be taken at this meeting, or later meetings of this session, to instruet your legislative eommittee to act wisely and in a far-seeing manner in their relations with the legislative bodies of this country. I do not mean to infer that your legislative eommittee has set any bad preeedents nor has acted in any unbeeoming manner, but my acquaintanee during the past several years with your legisuative men has lead me to believe that they are gradually learning the importance of these questions, and quieker, more definite aetion, I believe, is laeking, only on aeeount of the lack of seientifie knowledge of the plant pest situation. Without undue aecusation, I fear that the pecuniary losses of the immediate years are considered too strongly, rather than the possible or probable losses of later years resulting from the introduetion of plants bearing dangerous pests.

I ask that you aeeept this warning in the way it is given,—in a most kindly manner and in the interest of your great profession. _____

PROGRAM THIRTIETH ANNUAL MEETING OF THE TEXAS STATE HORTICULTURAL SOCIETY TO.. BE HELD AT COLLEGE STATION, TEXAS JULY 27—28, 1916

Officers, Fritz Engelhard, Pres., Eagle Lake; Eltweed Pomeroy, Vive President, Donna; G. H. Blackmon, Secretary-Treasurer, Dallas; I. E. Cowart, Assistant Secretary-Treasurer, College Station.

JULY 27, 8:30 A. M.

Invocation.

Welcome Address—E. J. Kyle, Dean of the School of Agriculture, College Station, Texas.

Response—Eltweed Pomeroy, Donna, Texas.

President's Annual Address—Fritz Engelhard, Eagle Lake, Texas.

Methods of Plant Breeding—Dr. H. J. Webber, Dean of the Graduate School of Agrieulture, University of California, Berkeley, California.

Neglected Horticulture—E. W. Kirkpatrick, McKinney, Texas.

Grape Fruit Culture, a Sueeess—Dr. E. Kalbfliseh, Mereedes, Texas.

Progress in Eradieating Citrus Canker—Ed. L. Ayers, Chief of the Division of Nursery Inspection, Houston, Texas.

Jujubes, a Promising New Fruit for Texas—F. T. Ramsey, Austin, Texas.

Some Promising new Varieties of Peaches—J. W. Stubenraueh, Mexia, Texas.

JULY 28, 8:00 A. M.

Business session.

Breeding of Speeial Crops—Oranges, Apples, Potatoes, etc.—Dr. H. J. Webber, Berkeley, Cal.

A Botanical Garden and Arboretum for Texas—John S. Kerr, Sherman, Texas.

Planting and Care of the Home Grounds—R. A. Gilliam, Dallas, Texas.

My Experienee in Top-working Hickories to Pecans—Frank B. Guinn, Rusk, Texas.

The Plaee of the Home Garden in the Plan of Diversifieation—W. B. Lanham, Extension, Hortieulturist, College Station, Texas. Reports of committees.

A Practical Business Meeting of Nurserymen

Read at the Milwaukee Convention of the American Association of Nurserymen by W. H. Wyman, North Abington, Mass.

IF it is to be worth while for nurserymen to leave their business and travel long distanees to attend this Convention, it must be a Praetieal Business Meeting of Nurserymen. If it is not, it is not worth while to attend it. If it is not, it has departed from the serious purpose. had in mind by the men who forty-one years ago called it into being. Until very recently, I thing the tendeney has been somewhat away from the praetieal business for which the organization was effeeted. We have, as it seems to me, allowed this gathering to drift from praetieal business, too much to merry-making. Many of us feel that it is not neeessary to travel several hundred miles to attend a vaudeville, or an orgie to Baechus, and to indulge in many things we would not eountenanee, in the towns where we are known, and in which our children are reared.

I believe this Convention should strenously set its face against all this and plaee itself on reeord, as disapproving for the future, of anything in the way of entertainment, on the part of the nurserymen of the eity or state in which the Convention convenes. It often costs more to entertain the Convention than the local nurserymen can well afford to pay; and all such entertainment is, perforce, perfunetory, and all are relieved when it is over. For one, I do not attend Conventions to be entertained, but to be instrueted and to do business with men I can not as readily meet, in any other way.

Can any of you imagine Thomas Meehan, Peter Ellwanger, Patriek Barry, J. J. Harrison, John W. Adams, Jaeob W. Manning, and others who have made their nurseries household names in America,—can you imagine those men coming together for sueh frolics as have to, too great an extent characterized some of our Convention meetings in the last fifteen years? If you ean, I confess my inability to do so. So much by way of introduction Now to the real purpose of this paper. I believe one of the first items of business to which we should set ourselves is to work out a plan, as to how we can put the business upon a dignified basis. At the present time, there is no generally recognized standard of business probity. Each nurseryman has his own individual standard, which ranges from low F to high G. It will be found a somewhat diffieult thing to standardize the various products that we produce; but it should not be so diffieult a task, to standardize the eoncerns produeing those products. The Landseape Arehitects of Ameriea have an organization, that in a way, standardizes every one of its members. They have a code of written or unwritten laws which, if violated, subjects the membership to discipline. There is with them a standard of professional honor and integrity, that is ennobling and wholesome. The very fact that an individual is a member of that federation admits him to fellowship with all men of the profession however high they may be, in their attainments.

Though I am not a mason, I presume that you who are masons, admit to your inner sanctuary a fellow man upon whose person is displayed the square and compass. It is not the emblem that unlocks the door, but that for which the emblem stands. So it should be with the membership of this, our national organization. Its membership should be lifted up to a higher standard. That standard should be one of quality and not quantity. The youngest and smallest should have equal standing with the largest and the oldest, if only they conform to the standards set. It should be that any man who is a member of the Amerieaan Assoeiation of Nurserymen, should need no other badge to voueh for his integrity. A man or firm who does not grade fairly, honestly represent his goods, do as he agrees, and pay his bills promptly, should not be allowed to continue membership in this Association.

The Nurserymen—not the nursery stock this time, needs to be standardized. And in the setting of the standards, many things should be taken into account. It should be our aim to put our business on a higher plant than that on which it now rests.

Our produets are hawked about in all sorts of places and in all sorts of ways. One ean purchase a given plant at any priee ranging from five eents to seventy-five. At whose door lies the blame? Not at the door of all, but of some nurserymen. Nursery business should be done by nurserymen and men of kindred pursuits. It should not be allowed to be subjected to the degradation of the auetion room and the "bargain counter" so ealled. The publie would be better served if they had their horticultural produets dealt out to them, by nurserymen who were properly standardized by membership in the Amerieaan Association of Nurserymen. And I would make as one of the requisites, in that standardization, as a eondition of membership, that no man shall sell to any outside this Association, any nursery stoek at a price, below his published listed prices. And in no instanee shall any person or firm allow their produets to be sent to any auction room for sale.

At the present time, if I am eorrectly informed, quite a number of the forcign nurserymen or their agents, that are eoming to us for our business, are also going to everybody else and unloading all the stock they can dispose of at priees below which they are charging us for what purports to be the same artieles. Either this is true, or they are dumping goods not true to name, upon those dealers who are in turn, imposing upon an unsophisticated public. Probably both are true, with the result that the nurserymen and the publie are the losers.

The nurserymen lose prestige because the publie knows it was some nurseryman who produced these goods and labelled them, and when stock proves to be untrue to name, and worthless except for the first season, the publie concludes that all nurserymen are unreliable. Judging from this experienee, they have a partial right to sueh a eonclusion. Then again the nurseryman suffers in the loss of trade that should be his, and the ruinous wasteful competition that some are tempted to meet, and which

no nurseryman can meet, except at the risk of being obliged, sooner or later, to take the poor debtors oath, or to have his estate declared insolvent by his administrators in case of his demise.

The man or concern which does the most of this jobbing business, cheats his creditors most in the final settlement,—judging by my limited experience. At the present time, some European Nurserymen are sending stock to this country for which they have no sale; taking the chance of disposing of it. If this is true, and circulars I have received, listing such stock, convince me that it is; if this is true, are we longer to tolerate such a condition? European Nurserymen should be taught that they can not longer play fast and loose in this regard with the Nurserymen of America. Either they must do business entirely with nurserymen, or do no business whatever with nurserymen. I believe it to be quite within the power of this Association to put an end to this sort of thing. If we are business men, with any good red blood surging through our systems, we should say the word that will change the present order, and that word should be, deal with nurserymen entirely or deal no more with any nurserymen, so far as this Association is concerned. Dutch and English nurserymen should be made to understand that they can not longer play this game in the old way. It should be a choice between the nursery fraternity on the one hand, and the hucksters, and the dry-goods houses on the other. Do you think it would take long for those foreign gentlemen to decide which trade they would prefer?

The Holland Nurserymen have an organization that can control the output of their nurseries, and I believe they will when we as an organization, unite upon a policy to which we will adhere. When we have done our part, when we have perfected our policy, we can then send an ultimatum, if necessary, to our Dutch and English cousins, which they will take more seriously, than many ultimatums that have been sent to Europe of late.

We have said, both we and the public are the losers by the present policy. I think no argument is necessary to further substantiate our claim.

In the final analysis, the public pays the bill. And for cheap prices, the public gets cheap service. The stock sold by dry-goods houses and hucksters may or it may not be reliable, and the chances are that it is not. I have been in foreign nursery establishments when they were doing up roses for the American dry-goods trade. They claim to have been told by the purchasers, to label so many roses "Jacks," so many "Brunners," etc., but as to what they were, was a minor consideration, only that they were roses. The same is true of Rhododendrons; and in this regard it is even worse, for so many varieties grown over there, are not hardy here. They may be nice plants, but not salable there, and sure to die the first winter here. They are sold at a price with which no nurseryman can compete who has a nursery establishment to maintain. At the present time, we and the public are the victims of this pernicious system. Shall we longer suffer it to continue, or shall we so perfect this organization that we can say to all comers; be they foreign or domestic, we will absolutely have no dealings with those who directly or indirectly supply stock to auction rooms, dry-goods houses or any individual or concern which does not make the production or sale of horticultural products their principal business. Let the edict go forth from this Association, and let it be as binding as the law of the Medes and Persians. I have dealt at some length on this phase of our business, which I believe should receive our most serious consideration.

There are other phases of our business that should be discussed in open parliament, but which my time does not allow me to consider. Let there be a session for their consideration at each convention hereafter; and let us devote no more time to sight-seeing and merry-making so long as there are so many things that need consideration and prompt action. Let the slogan be enunciated "The Nursery Business for Nurserymen," and when we have brought such a condition about, it will be of more value to the public in general, and to us in particular, than every other question on our program for discussion at this congress.

Denison and Sherman, Texas, June 12, 1916.

TEXAS NURSERYMEN'S ASSOCIATION

To the members of the Texas Nurserymens' Association, and to all other Nurserymen to whom it may come.

GREETING:—Another year has rolled around, and with it comes the time to renew our allegiance and membership for the ensuing year. Also, to invite others who are not members to become one of us.

The Badge Book feature that was inaugurated last year met with universally favorable comment, and gave members much favorable publicity. For this reason the Executive Committee will continue this feature and if possible improve upon it. We trust that many more names will be added this year.

None but actual paid up members will enjoy the privileges of the Badge Book. The book will give the name and address of each member who has a paid up membership. On opposite pages from the membership directory, advertisements will be permitted at the rate of $5.00 per page, or $3.00 for half page, in addition to membership fees. The Badge Book will also contain the program of the meetings.

Two meetings will be held:—One at College Station, July 28th during Farmers' Congress, and the Regular Annual Meeting of September 26th and 27th at a place to be selected at the College Station meeting. Members who send in their membership prior to printing tthe College Station Badge Book will have their cards in both the July and September Badge Books, so be wise and send in your new membership or renewal, at once, to insure getting into both editions of the Badge Book. Advertisements received in time for the College Station Badge Book, will also be inserted in the September Badge Book, without extra charge.

Badges will be furnished each member with numbers to correspond with membership number in Badge Book. Those nurserymen who are not members, are welcome to the meetings, but no badges will be issued to them. In voting, only those having official badges will be permitted to vote at either meeting.

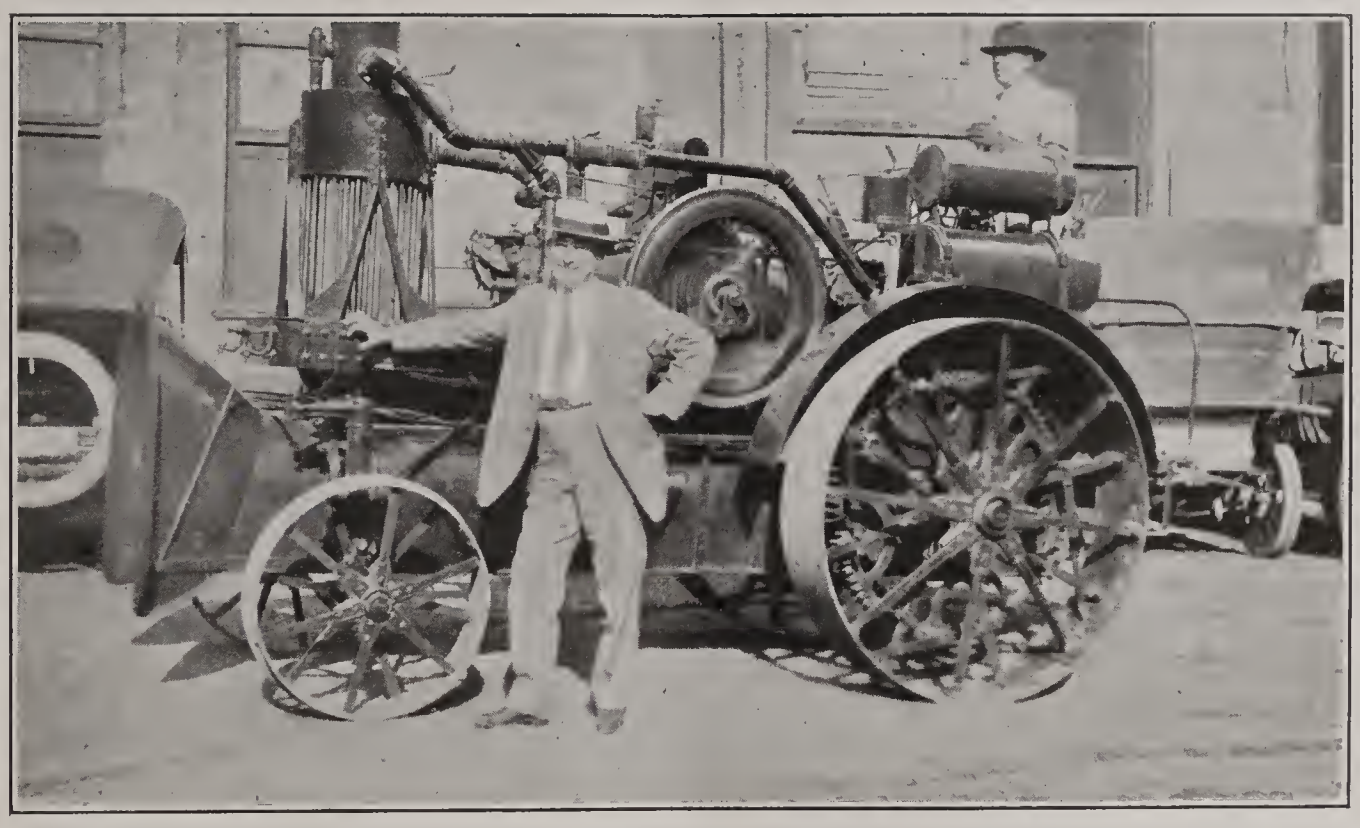
This urgent appeal is made to give all nurserymen in Texas, Oklahoma, Arkansas, Louisiana, and others interested, a notice and an invitation to send in their mem-

berships at once to the Secretary, J. S. Kerr, Sherman, Texas; and don't delay, for if you wait too long, the Badge Book will go to press without your name in it.

Further details of the approaching meetings will be sent out from time to time, but right now let us have your membership, $5.00 annual fee. All members of last year who renew before the first number goes to press, will be given the same number they had last year, and this of itself, will be quite an asset and advertisement, but a lapse of membership will forfeit the member that number.

Respectfully,

WILL B. MUNSON, JNO. S. KERR,



B. J. Vandervort, Bloomington, Ills., and his new Tractor Tree Digger, manufactured by the Avery Mfg. Co.

ARNOLD ARBORETUM

VIBURNUMS. There are no small trees better suited for the decoration of American parks and roadsides than the three arborescent Viburnums of the eastern United States. The first of these to flower is *V. prunifolium*, the Black Haw of the middle states where it is a common arborescent shrub or small tree on rocky hillsides and in fence rows, sometimes growing 30 feet high. It has rather narrower leaves than the other arborescent species from which it may be distinguished by the absence from the leaf stalks of the wing-like margins which are found on those of the other species. The clusters of pure white flowers are rather smaller than those of the others and the fruit is dark blue covered with a glaucous bloom, and remains on the branches until the beginning of winter. This is the common tree Viburnum of the middle states, only reaching New England in southwestern Connecticut. It is perfectly hardy in the Arboretum where it has been blooming for two or three weeks and is now passing out of flower. The northern species, *Viburnum Lentago*, the Sheepberry or Nannyberry, has broad and lustrous leaves and large clusters of creamy white flowers which are followed by sweet and rather juicy nearly black or dark blue fruits. This is a common northern tree or treelike shrub often twenty or thirty feet tall, and just now is a conspicuous feature in many parts of the Arboretum. The third arborescent species, *V. rufidulum*, is perhaps the most beautiful of all Viburnums. It is a southern tree which naturally does not grow further north than southern Virginia and southern Illinois; in the rich soil found along the borders of river-bottom lands in Mississippi, Lousiana and Arkansas it is a tree often forty feet high with a tall straight trunk and widespreading branches forming a symmetrical round-topped head. The leaves of this tree are thick, dark green, and more lustrous than those of other deciduous-leaved Viburnums. The flowers are pure white and are borne in broad, flat-topped clusters, and the fruit is bright blue and covered with a glaucous bloom. This Viburnum can be distinguished from the other species by the rusty brown covering of hairs on the margins of the leaf-stalks, branches of the flower-clusters and winter-buds. It has long been an inhabitant of the Arboretum where, although it is hardy in sheltered positions, it is only a shrub and probably will never grow into a tree. The best specimen is on Hickory Path near Centre Street. Of the shrubbery species now in flower attention is called to *Viburnum pubescens*, a plant with small pointed leaves and small compact clusters of white flowers which are followed by shining black fruits. There is a large compact group of this shrub on the right-hand side of the Bussey Hill Road opposite the upper end of the Lilac Group now entirely covered with flowers. No other Viburnum blooms more profusely. In the same border are now in flower three Viburnums of the Opulus section of the genus in which the cluster of fertile flowers is surrounded by a ring of large and showy, white, sterile flowers. On the whole, the handsomest of these three plants is the European *Viburnum Opulus* or Guelder Rose. The flower-clusters are smaller perhaps than those of the other species, but the plant grows

to a larger size and is more compact in habit; the leaves remain on the branches much later in the season, and the fruit is larger and of a deeper color. The Snowball of old-fashioned gardens is a form of this plant in which all the flowers are sterile (var. *sterile*). There is a form with yellow fruit (var. *xanthocarpum*) and a dwarf form (var. *nanum*) which is a low, compact, little bush which rarely flowers. The American species, *V. americanum* or Cranberry-tree, is a plant of looser habit, with translucent orange-red fruit which hangs on the branches until early spring. The leaves turn in the autumn to bright shades of orange and scarlet. The species of northeastern Asia, *V. Sargentii*, has larger sterile flowers than the other species and is decidedly a handsomer flowering plant. The long-pointed leaves are interesting and of a good color, but the fruit is small, dull in color and inconspicuous. These Viburnums are all flowering in the Viburnum Collection where many of the Asiatic species are also now in flower.

Early Summer Lilacs. The so-called Persian Lilac (*Syringa persica*) is now in flower. This is a native of Afghanistan and is said to have been cultivated in Persia and India from time immemorial and to have reached eastern Europe nearly three centuries ago. It is a broad, rather low shrub with long-pointed leaves and small fragrant flowers in few-flowered clusters which are crowded at the ends of the slender drooping branches and appear like one long narrow inflorescence. The flowers are pale lilac color. There is a white-flowered form (var. *alba*) and one with deeply lobed leaves (var. *laciniosa*). The Persian Lilacs are graceful and delightful plants, and although they were early brought to the United States they are now too rarely found in American gardens. Crossed with the common Lilac (*S. vulgaris*) the Persian Lilac produced in the Botanic Garden at Rouen a hybrid with broader leaves and immense clusters of reddish flowers intermediate in size between those of its parents. This hybrid is one of the most vigorous, largest and most useful of all Lilacs. Unfortunately it has been called *Syringa chinensis;* it is also known as *S. rothomagensis* and as the Rouen Lilac. There is a variety (var. *alba*) with pale pink, not very attractive flowers, and there are forms with flowers deeper red than those of the type, and with double flowers.

Syringa villosa is a large, very vigorous and hardy shrub from northern China which is now, June 9th, just beginning to open its flower-buds. The flowers are pale rose-color or rarely nearly white, and are produced in immense quantities in short broad clusters. In spite of the disagreeable odor of the flowers this is a valuable plant as it is one of the last of the true Lilacs to flower and greatly prolongs the season of Lilac flowers. Crossed with the Hungarian *S. Josikaea,* which is also now in flower, *S. villosa* has produced in Paris a hybrid race to which the name of *S. Henryi* has been given. One of these hybrids known as Lutece is now in flower and is one of the handsomest of garden Lilacs. It is a large and vigorous shrub with large, dark green leaves and great clusters of blue-purple flowers. Some of the new Chinese species will flower a little later, and these will be followed by the tree Lilacs of northeastern Asia.

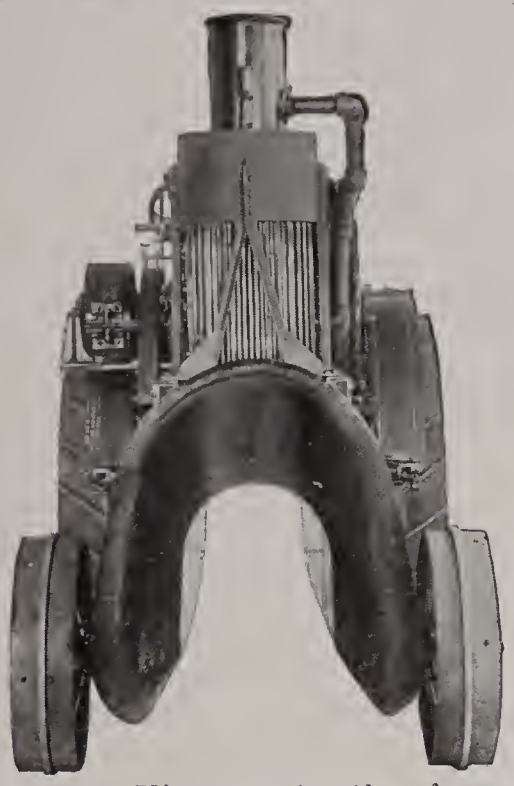
Robinia Kelseyi. This Rose Acacia, which was discovered only a few years ago on the slopes of the southern Appalachian Mountains, proves a hardy and valuable garden plant. The flowers are smaller and lighter-colored than those of the well known Rose Acacia (*R. hispida*) which flowers a little later, and the branches are not covered with the viscid hairs to which the Rose Acacia owes its name. *R. Kelseyi* is a shrub sometimes growing from six to eleven feet high, with slender stems and branches, leaves composed of nine or eleven narrow lanceolate leaflets which are bronze color as they unfold, and short racemes appearing with the unfolding leaves and composed of from four to seven flowers produced from the axils of the leaves of short lateral young branchlets which grow from end to end of the branches of the previous year. Sometimes as many as four flower-clusters are developed on one of the short lateral branchlets, and as the flowers in the upper clusters on the branchlet do not open until later than those of the lower clusters the plants are covered with fresh flowers for a long time. This Robinia will probably prove to be a better garden plant than the Rose Acacia, for although the flowers are not as large or of as deep rose-color it does not spread by underground stems, a habit which makes the Rose Acacia a weed which once established, it is almost impossible to control.

The Pawpaw (Asimina triloba). A colony of this handsome tree, which is very common in the southern states but at the north occurs in only a few isolated stations, is now established on Hickory Path near Centre Street, and this year the leafless branches have been well covered with the curious, dark-brown, bad-smelling flowers. Under favorable conditions the Pawpaw is sometimes a tree forty feet high with a tall, stout trunk; it has handsome drooping, dark green leaves often a foot long and six inches wide, but it is chiefly interesting as the only extra-tropical North American tree, with the exception of the wild Plums, which produces edible fruit. This is borne in few-fruited clusters and is from three to five inches long and from an inch to an inch and a half in diameter, greenish yellow, becoming almost black when fully ripe with semitranslucent, sweet, luscious flesh. The ripe fruit does not bear transportation and is rarely sold in markets, and so is little known except to boys who live near Pawpaw thickets. The American Genetic Association, however, has now taken up the possibility of the improvement of this fruit and is offering prizes for information about the largest trees, and about trees, regardless of their size, which bear fruit of unusually good quality.

"We don't wish to be without "The National Nurseryman." Dominion Nursery Co., Vancouver, B. C.

AVERY 12-25 H. P. SPECIAL NURSERY TRACTOR

The tractor illustrated was demonstrated as well as it could be in the court yard of the Wisconsin Hotel during the Convention at Milwaukee. Of course, there were no

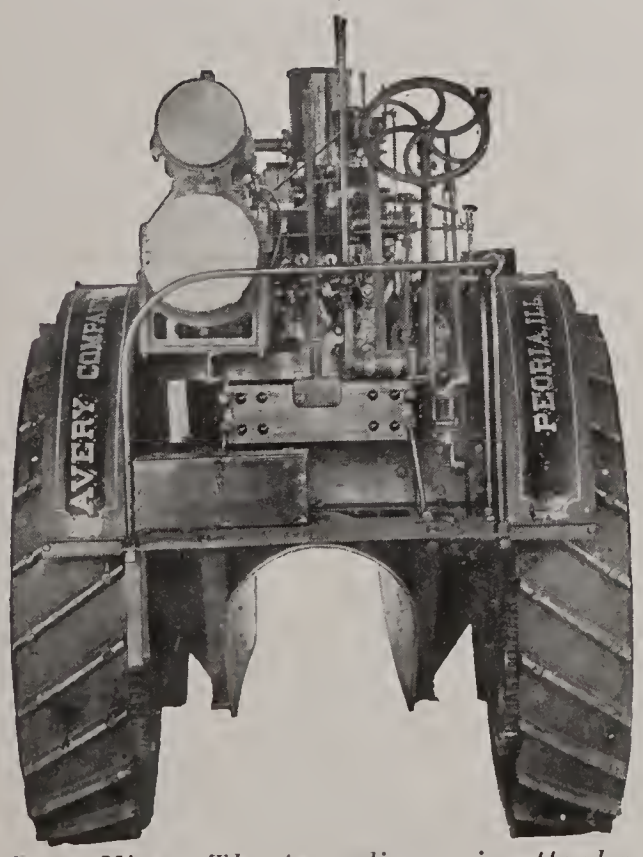


Front View, note the funnel shaped arrangement between the front wheels which gradually bends the trees forward as the tractor passes over them.

trees to dig, but for control it seemed to be all that could be desired.

Mr. B. J. Van der Vort, the inventor, says the test in actual tree digging on the nursery passed expectations.

Mr. E. Welch, Shenandoah, Iowa, was satisfied enough



Rear View. The tree digger is attached on behind.

to purchase a machine, as were two other visiting nurserymen.

Its ability to dig two-inch trees and up without damage by bending over was questioned by some.

Nurserymen from the Pacific Coast report things very quiet. The European War has stopped their industries to a great extent and they have not yet felt the prosperity due to munition orders, which have made things lively in the east.

AMERICAN ASSOCIATION OF NURSERYMEN

President—John Watson, Newark, N. Y.
Vice-President—Lloyd C. Stark, Louisiana, Mo.
Treasurer—Peter Youngers, Geneva, Neb.
Secretary—John Hall, Rochester, N. Y.
Executive Committee—President, E. S. Welch, Shenandoah, Iowa, Chairman; J. B. Pilkington, Portland, Oregon, one year; Lloyd C. Stark, Louisiana, Mo., one year; J. H. Dayton, Painesville, Ohio, two years; H. B. Chase, Chase, Ala., two years; J. R. Mayhew, Waxahackie, Texas, three years; Theo. Smith, Geneva, New York, three years; Vice-President, John Watson, Newark, N. Y., ex-officio.

Attorney for Association—Curtis Nye Smith, Boston, Mass.

Chairmen of Committees

Transportation—Chas. M. Sizemore, Louisiana, Mo.
Tariff—Irving Rouse, Rochester, N. Y.
Legislation East of Mississippi River—Wm. Pitkin, Rochester, N. Y.
Legislation West of Mississippi River—Peter Youngers, Geneva, Neb.
Co-Operation with Entomologists—L. A. Berckmans, Augusta, Ga.
Program—L. C. Stark, Louisiana, Mo.
Exhibits—Albert F. Meehan, Dresher, Pa.
Arrangements and Entertainment—T. J. Ferguson, Wauwatosa, Wis.
Publicity—J. R. Mayhew, Waxahackie, Texas; L. C. Stark, Louisiana, Mo.
Editing Report—John Hall, Secretary, Rochester, N. Y.
Root Knot—E. A. Smith, Lake City, Minn.
Membership—Will B. Munson, Chairman, Denison, Texas.
Finance—J. H. Dayton, Painesville, Ohio; T. J. Smith, Geneva, N. Y.; John Watson, Newark, N. Y.

STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irvine Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

Canadian Association of Nurserymen—President, E. D. Smith, Winona; secretary, C. C. R. Morden, Niagara Falls, Ont.

Connecticut Nurseryman's Association—President, Walter E. Campbell, New Haven, Conn.; secretary, F. L. Thomas, Manchester, Conn.

Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Littooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell. Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, E. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, E. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio· secretary, W. B. Cole, Painesville, Ohio.

Oregon—Washington Association of Nurserymen—President, C. F. Breilhaup, Richland, Wash.; secretary, C. A Tonneson, Tacoma, Wash.

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Andorra, Philadelphia Secretary, Henry T. Moon, Morrisville, Penna.

Southern Nurserymen's Association— President, Milton Moss, Huntsville, Ala.; secretary-treasurer, A. I. Smith, Knoxville, Tenn. Next meeting, Hendersonville, N. C.

Tennessee Nurserymen's Association—President, A. I. Smith, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Tennessee State Florists' Association—President, Karl P. Baum, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Denison, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas.

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

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Kimberly, Idaho, May 24, 1916

NOTICE

This is to notify the public that H. E. Butler is no longer in any way connected with our firm, and we will not be responsible for any obligations that he may incur.

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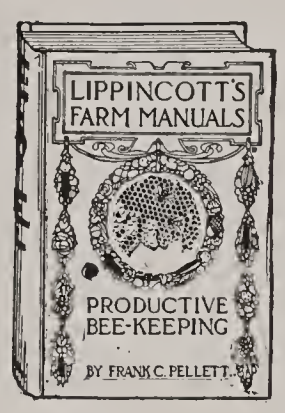
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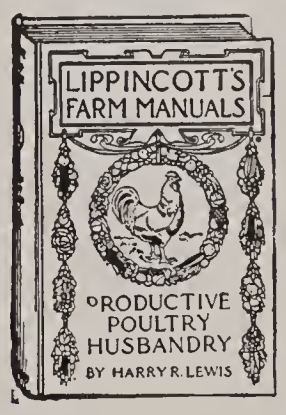
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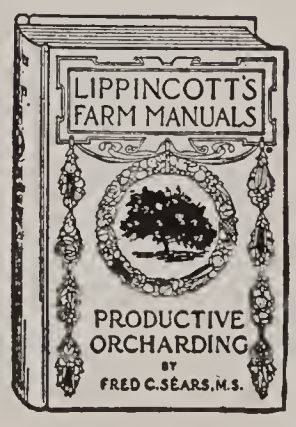
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We have several thousand in sizes running from 1½ to 3 in. caliper, well grown, several times transplanted, with straight leaders and well developed tops. Prices will be quoted you. Application for Fall 1916 and Spring 1917.

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Leslie H. MacRobbis, Mgr.,

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(Lake County, Ohio Grown)

The Leading Varieties, including Fall Bearers

You cannot buy better even though you paid more.

Owing to the backward spring—probably less than sixty per cent. of Root Cuttings and Transplants were put out as were grown last season throughout the country. **GET WISE**—while the growing is good,—and **CONTRACT NOW**—with



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The Official Organ of the American Association of Nurserymen

The only Trade Journal devoted exclusively to the interests of growers and dealers in nursery stock.

Edited by a practical nurseryman, Ernest Hemming, Flourtown, Pennsylvania to whom all correspondence pertaining to the Editorial Department, should be addressed.

Nurserymen cannot afford to be without a trade paper. The advertising pages, patronized by all the leading nurserymen throughout the world, will save many dollars to the subscriber. These pages are a record of the stock offered for sale.

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Kalmia latifolia.

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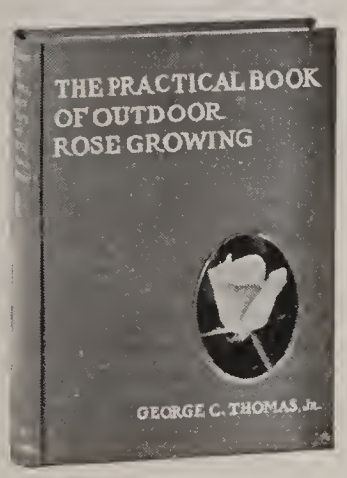
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Just a few of the most important items are listed below:

ASK FOR OUR COMPLETE LIST OF FRUITS AND ORNAMENTALS AND AT THE SAME TIME SEND US YOUR WANT LIST.

PEACH—1 YR.—BUDDED

⅜—½ —— 9-16—¾ inch

50000	Belle of Ga.
5000	Brackett
25000	Carman
20000	Champion
5000	Crawford's Early
10000	Crawford's Late
50000	Elberta
5000	Ford
6000	Fox
7000	Francis
5000	Greensboro
15000	Hieley
10000	Iron Mountain
4000	Krummell's
4000	Mayflower
15000	Ray
10000	Salway
5000	Slappey
7000	Smock
4000	Stump

APPLE—3 YR.—BUDDED

1¼—1½ —— 2—2½ in.

5000	Baldwin
1000	Gano
5000	M. B. Twig
3000	Stark
5000	Stayman
5000	Winesap
10000	York Imperial
5000	Yellow Transparent
5000	Wm. Ely, Red
1000	P. W. Sweet

APPLE—2 YR.—BUDDED

½—⅝—¾ inch

2000	Baldwin
1000	Duchess
2000	Gano
1000	Gravenstein
2000	Jonathan
1000	King
2000	M. B. Twig
2000	McIntosh
2000	Northern Spy
2000	R. I. Greening
2000	Rome Beauty
2000	Stayman

APPLE—1 YR.—BUDDED

3-4 ft., 4-5 ft., 5-6 ft.

1000	Baldwin
1000	Ben Davis
10000	Delicious
4000	Duchess
4000	Fameuse
1000	Gano
3000	Gravenstein
7000	Grimes' Golden
1000	Jonathan
3000	M. B. Twig
10000	McIntosh
4000	Northern Spy
6000	R. I. Greening
3000	Rome Beauty
15000	Stayman
5000	Wealthy
15000	Wm. Ely, Red
2000	Winesap
3000	Winter Banana
15000	Yellow Transparent
2000	York Imperial

PEARS

Bartlett—2 yr. budded ⅝-¾ in.
Keiffer--2 yr. budded ⅝-¾-1 in.

GRAPE VINES

2 yr. transplanted
Concord, Moore's Early

NORWAY MAPLE

2000	6 to 7 ft. ¾ inch
5000	7 to 8 ft. 1 inch
5000	8 to 10 ft. 1 to 1½ inch
15000	10 to 12 ft. 1½ to 1¾ in.
15000	12 to 14 ft. 1¾ to 2 in.
15000	14 to 16 ft. 2 to 2½ in.
10000	2½ to 3 inch
5000	3 to 3½ inch
1000	3½ to 4 inch
500	4 inch
200	5 inch
100	6 inch

EVERGREENS

Arborvitae, American
2 to 3 ft.
Arborvitae, Oriental
4 to 7 ft.
Hemlock, Canadian
2 to 4 ft.
Spruce, Colorado Blue
2 to 6 ft.
Spruce, Koster's Blue
2 to 6 ft.
Spruce, Norway
2 to 6 ft.
Spruce, White
3 to 7 ft.

MISCELLANEOUS

BARBERRY, THUNBERGII

Branched: 12 to 18 in.
18 to 24 in.
2 to 3 ft.

BOXWOOD

Dwarf
8 inch
12 inch

GLOBULAR

12 inch
18 inch
24 inch

PYRAMIDAL

8 inch
12 inch
18 inch
24 inch
30 inch

PRIVET, CALIFORNIA

6 to 12 inch
12 to 18 inch
18 to 24 inch
2 to 3 feet

SHADE TREES

Ash, Black
1 to 6 inch
Catalpa Speciosa
1 to 3 inch
Elm, American
1 to 6 inch
Ginkgo
1 to 2 inch
Horse-Chestnut
2 to 3 feet
Locust, Honey
¾ to 1 inch
Locust, Black
1 to 4 inch
Maple, Silver
1 to 6 inch
Maple, Schwedleri
1½ to 2½ inch
Maple, Ash Leaf (Box Elder)
1½ to 3 inch
Maple, Sugar
1 to 2 inch
Oaks
1 to 6 inch
Plane, Oriental
Tree of Heaven
1 to 4 inch
1 to 4 inch
Walnut, Black
1 to 2 inch
Weeping Willow

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Harrisons' Nurseries

J. G. HARRISON & SONS PROPRIETORS

BERLIN MARYLAND

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THE NATIONAL NURSERYMAN



AUGUST 1916

Published Monthly at Hatboro, Penna., U. S. A., in behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General

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Established 1847.

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Peach, Gooseberries,
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Other Ornamental Shrubs,
H. P. Roses, Etc.

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Apple Grafts, French Fruit Tree Stocks, Japan Pear Seedlings. Ornamental Shrubs and Deciduous Seedlings.

Always pleased to quote prices.

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with the best

Hardy Evergreens and Ornamentals

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Boskoop, - - Holland

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Big Drop in Prices. Come to Us.

Also { Peaches, Apples, Shrubs, Privet, H. P. Roses

Large Assortment of Varieties at Right Prices.

C. R. BURR & CO.,

MANCHESTER, CONN.

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December or February Shipment

FROM VINCENT LEBRETONS NURSERIES, ANGERS, FRANCE

Mahalebs, Myrobolans, Pears, Apples, Mazzard Quince, Manetti, Multiflora, etc., all grades, also Ornamental Stocks

PRICES READY NOW—WRITE FOR THEM.

NORWAY & SCHWEDLER MAPLES, LINDENS, OAKS, PLANES

Chestnuts, Elms, Thorns and all deciduous trees from Union Nurseries, Oudenbosch, Holland

BOXWOOD, ROSES, RHODODENDRONS, AZALEAS, EVERGREENS

Hydrangea P. G., Koster Blue Spruce, etc., from SCHAUM & VAN TOL, BOSKOOP, HOLLAND

GOOSEBERRIES AND MANETTI STOCKS FROM ENGLAND

HARDY LILIES (Auratum, Rubrum, etc.,) FROM JAPAN

HERBACEOUS PERENNIALS FROM HOLLAND

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A Large Stock of

APPLE, one, two and three year.

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PEAR, one, two and three year.

PLUM, one and two year.

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Monroe, Michigan

Extra Fine Peach and Pear Trees

For Sale to the Trade

We Will Need

Some Apples
Some Grapes
Some Berries
Some Currants

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High Grade Northern Grown Stock.

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CLEMATIS
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DUTCHMANS PIPE
(Not hyphenated. Born and raised here)

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(Extra fine stock)

PERENNIAL PLANTS
(Large assortment)

SHADE TREES

In Fruits:

APPLES PEARS PLUMS

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(None finer grown)

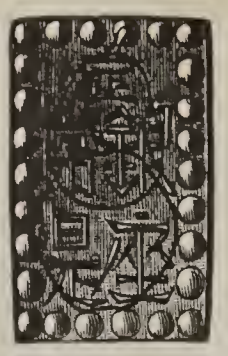
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Jackson & Perkins Company

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We offer for Fall of 1916 in large quantities as usual:

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Apple
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Cherry
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ROSES: Budded H. P's. One of our specialties. We grow them by the hundredthousands.

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See Price List for Particulars.

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We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S. A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

YOU want to keep posted on Evergreens;
WE want to become better acquainted with you;
Let's get together.

The D. HILL Nursery Co., Inc.

Evergreen Specialists

LARGEST GROWERS IN AMERICA.

Box 401 - Dundee, Ill.

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APPLE QUINCE PEAR CHERRY
PEACH PLUM

A Fine Block of
Own Root Roses

ORNAMENTAL TREES SHRUBS
BERRIES CLEMATIS
EVERGREENS PEONIES PHLOX
and
HERBACEOUS PERENNIALS

Write for our Special Prices

SPECIAL ATTENTION given to Dealers, complete lists and carload lots.

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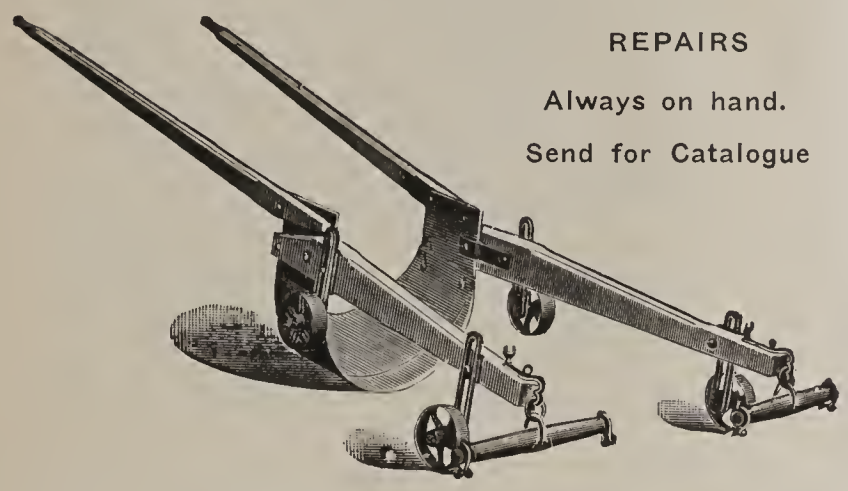
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Apple Seedlings **Pear Seedlings**

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Rhubarb, Myatt's Linnaeus, Pure Stock

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Catalpa Bungei

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WILLIAM FLEMER, JR.
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PRINCETON NURSERIES

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Located on the Pennsylvania Railroad, midway between Philadelphia and New York

The purpose of the promoters of this new enterprise is primarily to grow good ornamentals for the trade; to grow them as well as they can be grown; to sell them at consistent prices; and to distribute their products through such service as comes of long experience. Their friends in the trade are invited to visit and inspect the new plant; to send their catalogues and price-lists to the new firm; and to write for prices on their wants.

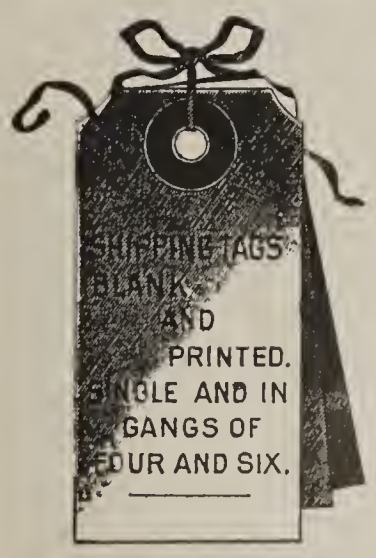
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AND FINISH OF OUR

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This stock is especially adapted to the most severe usage, being thoroughly waterproof and weather-proof.

"Once used always used."

Send for samples and prices. Our references are the largest nurserymen in the United States.

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West Chester, Pennsylvania

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The Retail Department and Nursery at Germantown, Phila., and the Landscape Department at Mt. Airy, Phila., will be continued by S. Mendelson Meehan and J. Franklin Meehan, under the firm name of Thomas Meehan & Sons.

The Wholesale Department and Nursery at Dresher, Pa., has been taken over by Thomas B. Meehan and his son, Albert F. Meehan, and will be conducted under the firm name of Thomas B. Meehan Co.

All accounts due Thomas Meehan & Sons at Dresher, are due and payable to

Thomas B. Meehan Co.,
Dresher, - Penna.

SPECIMEN EVERGREENS

IMMEDIATE SHIPMENT



Arbor Vitae, American, 3 to 4 feet.
" " " 4 to 5 feet.
" " " 5 to 6 feet.
" " Columbia, 2 to 3 feet.
" " Lutea, 3 feet.
" " Pyramidalis, 3 to 4 feet.
" " " 4 to 5 feet.
" " Tom Thumb, 2 feet.
Juniper Irish, 4 to 5 feet.
" Virginiana Glauca, 3 feet.
" " Sinensis, 2 to 3 feet.
" " " 4 to 5 feet.
Retinispora Filifera, 2 to 2½ feet.
" " Aurea, 15 inches broad.
" Obtusa Nana, 12 to 18 inches.
" Squarrosa, 2 to 3 feet.
Spruce, Kosters, 3 to 4 feet.
Boxwood, Pyramids, 3 to 4 feet.
" Standard
Rhododendrons, choice lot.

W. B. COLE, - - Painesville, Ohio

JOHN WATSON & CO.

Newark, New York

AGENTS FOR

F. DELAUNAY,

Angers, France

New Catalogue for Season 1916-1917 is now ready for distribution and will be sent on request. Nurserymen who like good stocks, evenly graded, properly packed, at closest prices and lowest importing expenses, should write us. We will gladly refer to last season's customers. One wrote: "Delaunay's stocks check up more good points in quality, grades and packing, than any others received." This referred to a two-car-load order. Another wrote: "Your importing expenses were the lowest." And this referred to a five-carload order. The combination of Quality, Price and Service that makes Value, is appreciated by buyers. If you want something better, for less, try us. We have shown others; we can show you.

August first, 1916.

EVERGREENS

Seedlings—Transplants

MILLIONS OF THEM

Arbor Vitae—American
Arbor Vitae—Compacta
Arbor Vitae—Douglas Golden
Arbor Vitae—Globosa
Arbor Vitae—Hoveys Golden
Arbor Vitae—Pyramidalis
Arbor Vitae—Siberian
Arbor Vitae—Tom Thumb
Arbor Vitae—Orientalis
Arbor Vitae—Orientalis Aurea
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Austrian Pine
Biota, 3 varieties
Black Hills Spruce
Colorado Blue Spruce
Douglas Spruce
Concolor
Englemans Spruce
Jack Pine
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Norway Pine
Pinus Mugho
Pinus Flexilis
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Especially attractive prices on large orders

Also a Complete line of Fruit and Ornamental Stock

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The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

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THE BEST IN NURSERY PRODUCTS

We carry a full line of fruit and ornamental trees, evergreens, shrubs, etc. Send us your list of wants.

Listed below are some real winners. If what you need is not here, write for our trade list.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Magnolia Tripetela, Japan and American Judas, English Walnuts, Japan Walnuts, California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Apples and Peaches, 10,000 Downing Gooseberries, 2 years, No. 1.

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In Storage, can ship any time

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, Hydrangea, P. G., California Privets, Barberry THUNBERGII, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

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As fine as ever grew. We have them on our own grounds (fresh new land). Plants strong, vigorous and healthy, with an abundance of fibrous roots. **Every plant guaranteed true to name.** No better anywhere, at any price. Our plants are hardy everywhere, where strawberries are grown. **BIG STOCK OF PROGRESSIVE, the best of all the fall bearing varieties.** Also full line of raspberries, blackberries, grape vines and other small fruits. We fill orders any time in November, December, January, February, March and April. Let us hear from you.

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100 Market St.,
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☞ All plants tied 25 to the bunch and every bunch labelled.

We keep on hand large supply of
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FOREST TREE SEEDLINGS we only have in limited supply this season, and would advise placing your orders early.

TREE SEEDS we can supply in limited quantities.

Send list of your requirements for lowest prices. Trade list ready.

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Cherry, Two Year, extra fine, leading varieties in car lots

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Our Blocks of Cherry are perhaps the largest in the country

Std. & Dwf. Pear, Japan Plum, Compass Cherry

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Weeping Mulberry and Bungei Catalpa

Hardy Budded Pecans and English Walnuts

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Grape Vines, Currants and Gooseberries
in all varieties and grades
——also——
Grape and Currant Cuttings and Light Grade of Vines for Lining Out in Nursery Rows

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HYDROCYANIC ACID GAS

"CYANEGG"

Sodium Cyanide in egg shape, each egg weighs as near one ounce as possible. Destroys scale insects on Fruit Trees, Nursery Stock, Plants under glass and in Greenhouses.

Manufactured in U. S. A. by
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500,000 PEACH, 40 Varieties, 1 year buds
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BARBERRY THUNBERGI, 2 and 3 year transplanted

Can supply the above stock in car load lots or less, also, have a large stock of Rhubarb, Cumberland Raspberry Plants, Spireas, Deutzia Assorted, nice specimen plants. Evergreens, Horse Chestnut, N. Maple, Lombardy Poplar and Planes, etc.

We will make attractive low prices for early orders
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The kind that give satisfaction.

Facilities for the handling of your requisite, combined with the quality of our product is unsurpassed.

Samples and prices are at the command of a communication from you.

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AZALEAS, ANDROMEDA, KALMIA and other American plants in great variety.
CONIFERS a large stock, of all hardy kinds.
HARDY ORNAMENTAL, EVERGREEN and DECIDUOUS TREES.
ROSES. Dwarfs and Standards in all varieties.
CLEMATIS AND CLIMBING PLANTS.
FRUIT TREES Espalier trained pyramids in quantity.
MANETTI ROSE STOCKS 1 year splendidly rooted from sandy loam, none better imported.
A general assortment of hardy outdoor stock. Glad to answer inquiries.

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HARDY NURSERY STOCK SUCH AS
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PAEONIES, MAGNOLIAS,
RHODODENDRONS, ROSES, ETC.

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FRUIT AND SEED FARMS

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GRAPE VINES—One and two years old. Varieties largely Moore's Early, Concord and Niagara.

Also Scarlet or Crimson Clover Seed and Cow Peas. Free from weed seeds, all recleaned and guaranteed first class.

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200 Acres
High Grade
Trees, Shrubs,
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Fine Stock
of
Rhododendrons
Kalmias
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Send for Price List

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FRAMINGHAM, MASS.

We have a splendid stock of

Grape Vines

and other small fruit plants for the Nursery trade, graded up to the highest standard and sure to please you.

Give us a trial order, send in your list now for quotations

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One and two years old. Graded up to the highest standard. Our stock never looked better. Write us for catalog. Send us your list of wants. Our prices are right, our stock A No. 1.

We grow our Stock up to QUALITY and GRADE, not down to a price. Nevertheless, our prices are always in line, you can't afford to pay less, and there's no sense in paying more. If you are pleased with what you have been getting, you will be better pleased with our stock.

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The Japan Pear stock is proving to be a better grower—more vigorous and less subject to blight—than the French Pear. It is free from the root louse, and is the coming stock for the South and West. The Japan Pear will stand more drouth and more wet than the French Pear. We have great faith in the Japan Pear stock as a propagating stock and are growing it in large quantities. We will make very close prices. Our grades are the very highest and we guarantee the arrival of these stocks at your station in perfect condition. If you are a grower of pear trees try the Japan stocks.

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Apple and Pear Seedling Specialists.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK
The National Nurseryman Publishing Co., Incorporated

Vol. XXIV. HATBORO, PENNA., AUGUST, 1916. No. 8

Impressions of a Retailer Present at the June 1916 Convention

By A. C. Hanson, Sales Mgr., Western Branch, The Hawks Nursery Co., Wauwatosa, Wis.

AFTER a peaceful, uneventful sort of Rip Van Winkle existenee for some forty odd years, the American Assoeiation of Nurserymen has apparently shaken the lethargy and dry rot whieh has enveloped it and now bids fair to aeeomplish the things for whieh it was primarily organized. No doubt, this organization has done some good work, but it has failed utterly to give any proteetion to the largest wing of its membership; namely, the Retail Nurseryman.

In spite of the prediction that the American Association of Nurserymen would fall by the wayside because of the adoption of a new Constitution at its 1915 meeting, the attendanee this year was far beyond one's greatest expectations and more to the point, there was more real interest and aetivity displayed than at all previous meetings put together, whieh the writer has attended.

At this meeting, the Retailers had at least one good inning. They hit the ball squarely on the nose and seored a few points which counted for their side. For many years, Retail Nurserymen (in going to and from these eonventions) have asked themselves this question, "What is this Association doing for me?" It was not doing mueh or this question need not have been raised. The retailer has been faithful in his attendanee at these meetings year after year; actuated by the hope that something would be done sometime to relieve him from the evils whieh were threatening to ruin his business. One of whieh was the ever increasing distribution to people not entitled to the same, of wholesale price-lists. This year a real Moses in the person of Michael Cashman appeared on the scene and voieed a few truths which were unanswerable. That ninety-nine per cent. of the retailers were with him was well proven by the hearty indorsement given his speech and resolutions both at the time of presentation and after the business session.

That the majority report offered by the committee of which Mr. Cashman was chairman, was not relished by the wholesale element present at this convention, was evideneed by various subterfuges and parliamentary tricks offered in an effort to shelve the resolution. One party objeeted on the ground that it would give Czar like powers to the Viee-Presidents of the various states, who with five assoeiates are to make up a list of all nurserymen and dealers in each state who are eligible for a wholesale price-list, and offered a motion that this matter should be turned over to the Executive Committee. Did you ever stop to think who composed the Executive Committee and if six members from each state are not able to give an intelligent report on who is eligible to receive wholesale trade lists, what do you think of vesting this authority of power into the hands of the few who compose the Exeeutive Committee.

The great trouble with the nursery business is that many of the wholesalers have felt free to do just about as they had a mind to on the price question, loading up the retailer by contraet early in the year and disposing of their surplus wherever they saw fit in most any way they saw fit.

One wholesaler championed the landscape architect's rights to receive wholesale lists, offering the absurd contention that the landseape architeets and their clients absorbed more stock than any other element. This man evidently does not appreciate that all of the large wholesale nurserymen are agreed that with the complete elimination of the retailer and his agents, the sale of nursery stock will be reduced one-half or three-fourths at least.

How any wholesaler can in an open convention defend the reprehensible aets of landscape architeets who use the wholesale price-list as a club for getting business, is something a retail nurseryman cannot understand. When landscape architects with the design they submit to a customer are able to attach thereto a list of from eigh-

teen to twenty leading wholesalers' names, stating that from these firms their goods can be bought at cost, what show has the retailer to get the business and it might be said further that the average retail nurseryman today is in a position to do just as good work in the way of landscaping on the average place, as those who make an exclusive business of it. One large wholesale nurseryman said to me that a large part of his business came through jobbers who made a business of canvassing the Department stores. He said he knew of one man who made $25,000.00 a year net, this way. If this be true, it shows to what extent the Department stores are eating into the legitimate trade of the retail nurseryman. Right here at Milwaukee this year, Delicious apple trees, beautiful specimens, 6 to 7 feet, were sold at from nine to twelve cents each; Lilac "villosa," twenty-five to thirty cents; Currants, 1 to 2 year, as good as we get from the wholesaler, at two and three cents each; a large assortment of the best flowering and foliage shrubs at from eleven to sixteen cents each. This stock was not scrubby stock, nor in any way inferior to the stock that the large wholesaler furnishes this and other retail nurserymen.

It was said at the convention that this business does not hurt the nurseryman. When it is considered that interurban lines tap the surrounding country for forty and fifty miles and bring hundreds of our best farmers to Milwaukee to trade and they see trees, shrubs, plants and roses offered at ridiculously low prices and then stop to think of what they pay the nurseryman, what do you think is their opinion of the retail nursery dealer and can you honestly say that this does not hurt the retailer? To make bad matters worse—nursery sock is carelessly handled in Department stores. People who buy early when stuff has just opened up probably come out all right, but as a rule stock is displayed on sidewalks and in hot, stuffy rooms and dries out quickly. The writer has seen nursery stock sold as late as June 20th, on the sidewalks of Milwaukee; the plants themselves dry as a bone, but at the same time, were carefully burlapped at the root and kept watered; the unsuspecting buyer being badly stung in his purchase. Getting stock like this does not strengthen the buyer's confidence in nurserymen and their ways.

The writer has made a good deal of inquiry about Trade Associations and does not know of one which carries on its rolls retail dealers and wholesale dealers, but have learned that Wholesale Trade Associations in other lines of endeavor are now and have for years fostered a policy of giving the retailer all of the protection it was possible for their association to create. Has there ever been any such policy followed in the American Association of Nurserymen?

We must all admit that this Association and its policies up to the present time have been dominated by wholesale interests.

To my mind the most regrettable incident of the whole meeting was the fact that the wholesale element were not big enough to come forth with a resolution similar to that Mr. Cashman offered, instead of letting the opportunity slip by and have this plea come from the retailers themselves. If the wholesalers had taken this step even as late as this year, most of the retailers would have gone home with a better feeling in their hearts and a greater degree of confidence in the wholesale nurserymen with whom they are doing business.

I venture to make a prediction now that unless the wholesale nurserymen are agreeable to work with the retailers, co-operating with them toward eliminating the wholesale distribution of wholesale trade price-lists, that the retailers themselves being largely in the majority will secede from the parent organization and form an Association of their own which shall be strictly for the retail nurserymen and which can then be conducted in a way that will work for the retailer and his interests. The more I think of it, the more I believe that a larger and better Association can now be formed if it was to be composed of retail nurserymen only. There are certainly more retail nurserymen outside of the present organization than there are in it and if an organization of this kind can be formed for the benefit of the retail nurseryman and him only, it would be an easy matter to treble the present membership of retail nurserymen.

WHEN THE EUROPEAN WAR ENDS

There are those who say that the loss of war orders after peace comes in Europe will seriously affect the industries of our country. This is absurd. The percentage of war orders, contrasted with the entire domestic and foreign commerce of the United States, is insignificant. When war orders cease—and God grant that the necessity for them may cease soon—we shall receive orders, even from Europe, for the restorative purposes of peace, for the reconstruction of ruined industries and cities, and for the relief of the stricken markets of Germany and Austria, which have been closed to us for the full period of the war. Our trade to Austria and Germany alone for the last year prior to the outbreak of the war amounted to $367,500,000. All this trade will be regained, and in addition to that, if we are in the least intelligent and enterprising, the great markets of South and Central America, which have been seeking us for the past two years, will more than offset any possible loss of war trade. The total imports of South America alone, exclusive of those received from the United States during the last year of available statistics prior to the outbreak of the European war, were something like $700,000,000. The great oriental trade is also before us.

The White Pine Blister Rust Quarantine

Read at the Milwaukee Convention by Prof. F. L. Washburn

THE few remarks, which I have to make are in no way to be considered as a criticism upon the action of the Federal Horticultural Board in its connection with the White Pine Blister Rust. The Board has been placed in a trying position and has evidently acted wisely and with foresight in its effort to protect the great pine growing region of the far west.

The biology of this rust disease is probably known to most of you, and you are aware of the fact that it spreads from five leaf pines to currants and gooseberries, upon which it is found during the summer in two stages, the last stage sending spores to pines. It may travel many miles upon currants and gooseberries, particularly upon the black currant, for which it has a special affinity. While this disease will not ordinarily kill a large white pine, it will destroy young trees and hence it is a menace to reforestration in the United States.

Originating in Europe, the infestation in America can be traced to importations before severe restrictions were put upon importations. The raising of eastern white pine, has on account of this disease been practically prevented in England, Holland and in Denmark. It has been known to exist for several years in some of the eastern states, principally New York, Vermont, New Hampshire, Massachusetts, Pennsylvania and some others.

It is of existing conditions of which I would like to speak, reminding you that a paper offers only a skeleton upon which to hang a discussion; the discussion being much more valuable than the facts outlined in a formal paper. If I, therefore, bring to your notice certain conditions, in Minnesota for example, I believe that by so doing I will illustrate conditions which exist in other states, particularly Wisconsin and Michigan.

To be explicit, we have found in Minnesota only two infestations, both of them east of the Mississippi River near the Wisconsin border, and one of them known to have been caused thru a shipment of pines from Germany, coming thru an Illinois nurseryman to a party in Wisconsin close to our eastern border. Some of these pines were brought across the St. Croix River into our state by a nurseryman and in that nursery the disease was first discovered. In another nursery, 40 or more miles to the south, a second infestation was discovered by the Minnesota Inspection service upon a pine standing in a row of trees, which had been in the ground in this nursery for fourteen years or over. This was found on the main trunk. The source of this infestation we are not sure of, and it is now a matter of investigation. A second infestation in this same row was discovered later.

It can hardly be charged to the negligence of any officials or scientific men that the white pine blister rust has obtained a foothold in any state. Critics might say that the State Nursery Inspectors in the states affected were guilty of negligence, and that the Plant Pathology Divisions of the various experiment stations should have become cognizant of the presence of this disease at its very first appearance. We do not believe, (we speak particularly of the two states in the northern Mississippi Valley, namely:—Wisconsin and Minnesota), that either of these departments are guilty of oversight under the present circumstances.

In Minnesota the Inspection Department has been watching for several years, shipments of pines from Europe to Minnesota Nurseries with negative results, not dreaming that we would receive the infestation from our sister state, Wisconsin.

Our Inspection force has carefully combed all nurseries in the state raising five leaf pines, and so far we have failed to find it outside of the localities mentioned.

In this work the Plant Pathology Division of the Experiment Station is co-operating in an advisory capacity, and we are also assisted in this work by the State Forestry Service. All Minnesota nurserymen appear willing to co-operate and have shown their willingness in at least two instances in a very practical way. It is a significant fact, and a very important one from the standpoint of the nurseryman, that so far, with the exception, I believe, of one not well authenticated instance, it has been found impossible to carry this disease thru a winter on dormant currants and gooseberries. It is also to be noted that the Federal Board places no restrictions upon the importation of Ribes from Europe.

In the interest of nurserymen, therefore, and if the speaker is at all critical it is upon this point I wish to emphasize the following facts:

Altho this disease has been known to exist in various eastern states for several years, no restrictions whatever were placed by the Federal Board upon these states. In other words, these states have been at liberty to ship into Minnesota, Wisconsin, and Michigan, (I mention these states on account of the White Pine industry here), white pines and other five leaf pines without limit. The three states above mentioned have not been protected from infestation. At the same time, last spring, but evidently too late to have a bearing on last spring's shipments, nurserymen in Minnesota, also probably in Wisconsin, the Dakotas, and Iowa received requests from the Federal Board not to ship white pines, currants or gooseberries west of the Dakotas, and west of a line drawn south from there. This directly affects the trade in eastern Montana, which territory is being rapidly settled, and sending out big demands for such fruits as currants and gooseberries. The fact, as above stated, that, apparently the disease does not go over on dormant currants or gooseberries would appear to make this request deserving of reconsideration.

It is this feature of the quarantine that I should like to see discussed by the nurserymen as well as the sub-

ject at large. I must again repeat that we have done all we can in Minnesota to urge the nurserymen to observe the requests of the Quarantine Board, altho we hope that by a proper representation before the Board on the part of Nurserymen and Inspectors, we can get a modification of this request in connection with dormant currants and gooseberries.

Mr. Thomas A. McBeth, Springfield, Ohio, is one of the old guards in the nursery business in the middle west, having been engaged in growing ornamentals for about forty years.

Although chasing four score and ten pretty closely, the photograph which we were fortunate enough to take when he was visiting the convention, shows him



Thomas A. McBeth at the Convention

to be still active and by no means a back number.

Mr. McBeth believes in specializing and in later years has confined himself to the propagation of evergreens and shrubs for lining out. He is a firm believer in a rosy future for the nursery business and while recognizing things are not just as they should be at present, thinks it is going through a reconstruction period from which it will emerge better than ever.

Mr. McBeth says:—"There is every reason why nurserymen should be consistent Christian gentlemen and no reasons why they should not be."

He urges young men to make a scientific study of their business and to begin early, because the nursery business is a science that the longest life if far too short to master.

SOUTHERN NURSERYMEN'S ASSOCIATION

Do not forget the meeting of the Southern Nurserymen's Association, which will be held at the Peidmont Hotel in Atlanta, Georgia, Tuesday and Wednesday, August 29th and 30th.

The first session will be held about 10 a. m. on Tuesday. A big crowd and a lively meeting is expected.

For any special information apply to O. Joe Howard, Secretary, Pomona, N. C.

ORCHARD SUBSOILING WITH DYNAMITE

By A. S. Harris, Beech Bluff, Tenn.

It is now a generally recognized fact among a large majority of fruit growers and nurserymen that dynamite plays an important part in the preparation and subsoiling of orchard lands.

It enables the orchardist to gain from six to twelve months, as all orchard soils need a thorough preparation, which usually takes a long time by the old methods. Dynamite does this immediately.

The cost of materials averages about 6c per tree. I would not think of setting an orchard without it. One-half stick per hole exploded at a depth of 24 inches makes an ideal home for the tree roots. The subsoiling thoroughly breaks up the hardpan for several feet each way and from 3 to 4 feet deep. This enables the soil to take up and store moisture for the tree's future use and also makes available much extra plant food by the greater depth of root penetration.

Recently I visited one of the largest and most up-to-date orchards in this section. Mr. E. J. Barker, the owner and manager, is an enthusiastic user of dynamite, and takes much delight in telling of his success with it in orchard work.

Mr. Barker told me, many years ago he learned to use dynamite in coal mines, in the north. When he quit the mining business he came south and bought a small tract of land of about 7 or 8 acres.

This he set to fruit trees of various kinds. His place is very beautiful and everywhere shows signs of his thrift and progressiveness.

He tells me he has had all kinds of experience in orchard work with explosives. He does not set a tree without first blasting the ground if he can possibly avoid it. If he has to set without it he afterwards blasts around them.

A section of his orchard set to peach trees, part blasted, part unblasted showed a remarkable difference in the growth of the trees as well as their fruiting. He has a lot of grape vines set in blasted ground and they are nice indeed.

Verkade Van Kleef, Nova Nurseries, Waddenxveen, Holland, writes:—

"We have had a fine spring here and most all stock is looking very promising so that we are able to attend to the orders from America in a satisfactory way.

Wish to say to our customers again that they will do good to send their correspondence in duplicate by different mails, if they wish to be sure of it reaching us."

Answers to Correspondents

Do you know of a machine used in the Nursery Trade for the counting and tying of trees?

This is one of the processes entering into the grading of trees, and I find that it is taking a great deal of time.

I can see no reason why it could not be done automatically. If you can give me any information on the subject it will be highly appreciated. D. H.

No. Do any of our readers know of such a machine?

Q. I want information in regard to the proper treatment of soil in seed beds to eliminate the growth of weeds.

Can the soil be inoculated with a formula that will destroy weed seeds and not injure the tree seeds? Is there any spraying mixture that would kill the weeds and not injure the little seedlings? D. H.

A. There is no Royal Road to keep seed beds free from the growth of weeds, at least we have not had practical experience in any.

Suggestions such as steaming soil or heating it so as to kill the weed seeds and funguous disease are sometimes recommended but the remedy is almost as bad as the disease and is usually very costly. There is no chemical that can be used that will kill the weeds and not injure other plants. If a chemical would do this it would almost have to have human intelligence to determine between the weed and the plant, which you know is impossible. Numerous remedies are advertised for killing dandelions in lawns and weeds in drives. The latter is effective, but the former not, at least not to any great extent. We have seen experiments worked with it but they were not very successful, and really do not amount to as much as hand work.

Q. "Will you kindly tell us if it would be advisable to keep greenwood cuttings in a propagation bench called "Sweatbox" by this we mean to keep the sashes closed day and night?

What is the best to stop fungus in the greenhouse?

You can undoubtedly help us out and give us the information above, which we assure you will be greatly appreciated." D. H.

A. It is immaterial whether cuttings are in an enclosed sweatbox, if the proper degree of heat and moisture can be maintained for the kind of cuttings that are being propagated. If the sweatbox is kept closed there is great danger of too much condensation of moisture, with the result that it will breed fungous disease, which results in damping off. However, if the correct amount of moisture and heat can be maintained, it can be kept closed.

The best propagators, however, do not depend on any rules as the only possible way to know just what are the correct conditions to make a successful strike are found by experience.

Giving air is really the method of controlling the heat and moisture, and is very essential in most instances. There are times especially in early spring when the sweat box can be left closed and conditions will keep just about right but no general rule can be given.

I judge from your next question "What is the best to stop fungus in the greenhouse?" that you have been keeping your houses too close and not giving air enough. Sun and air is the very best remedy. Formalin 1 to 50, used at the rate of two quarts to a square foot of soil is recommended as a remedy, but we think you will find the better way is to thoroughly clean your houses and properly air them, which will reduce the fungus to a minimum.

A NEW FIRM

In our advertising pages is an announcement to the trade that a new nursery is being started at Princeton, N. J., under the name of the Princeton Nurseries. William F. Flemer, Springfield, N. J., John Watson, Newark, N. Y., and William Flemer, Jr., Springfield, N. J., forming the company. Mr. Watson and Mr. Flemer, Jr., will devote their time to the new venture.

Their superintendent is Mr. Frank L. Waterhouse, who was formerly with Mr. Watson at Newark.

The location has been very carefully selected on account of the soil and climate. This combined with the personnel of the enterprise bespeaks its success.

MEEHAN VERSUS INGALLS

The Supreme Court of the State of Washington decided in favor of Thomas Meehan & Sons in a suit to recover payment for crab and pear seed.

The defendant or buyer counter claimed damages on the ground that the seed although properly planted failed to germinate.

The trial jury returned a verdict in favor of the defendant, but the supreme court reversed the judgment on appeal, and entered judgment in plaintiff's favor.

While the seeds were sold under a guarantee that they would be of the "usual first class germinating quality that we had furnished in the past" and the letter head contained the usual disclaimer:

"While we try to procure the best seed on the market, we give no guaranty, either expressed or implied. Samples will always be furnished when applied for. If the seeds are not accepted on these terms, we must be notified at once. If they are kept it will be taken as proof that they are satisfactory."

The verdict seems to have been rendered on the evidence that the seed was tested before being sold and that the defendant had not handled them right.

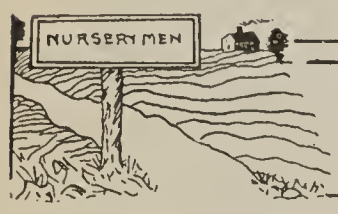
On receipt of the shipment, the seeds were placed in a creek, where they soaked for about a week, after which they were placed in an ice-pack for several weeks. Before the plaintiff made the shipment, the seeds were given the usual test to determine their character, and this test showed that they were good and would germinate. On the other hand, the only evidence offered by defendant to show that the seeds were not good was the fact that they were planted in good soil in the usual manner, but did not grow.

An expert testified that two days at the longest was the time required for wetting seeds, and that if they are

placed in an iee-pack, which is permitted to melt, the seeds will heat and destroy their germinating quality. Under these eireumstances, the Supreme court said:

"We think it is apparent from these facts that there were at least two causes for the destruction of the germinating quality of the seeds after they were received by the defendant. If the seeds were left too long in water, they would germinate, and iee would then destroy the germination; and, secondly, if they were properly plaeed upon the iee, and the ice was permitted to melt, the seeds would heat, and the heat would destroy the germinating quality. Both of these conditions are present in this ease.

"Assuming, without deciding, that there was an express warranty of the quality of the seeds, the testimony is not disputed that the usual test was applied to the seeds by the plaintiff to determine the germinating quality of the seeds, and the test showed the seeds to be good. There is no evidence to dispute the good quality of the seeds, exeept that the seeds when planted did not grow. But the method of handling the seeds by the defendant after he reeeived them is sufficient to show that it was through his own neglect and failure to properly treat the seeds that their germinating power was killed.



Bvsiness Movements.

The Cunningham Nursery Company, Seymour, Indiana, expeet to go out of the business in the near future. They have been subscribers of "The National Nurseryman" for nearly fifteen years.

MARSHALL BROS.

Marshall Bros., Arlington, Nebraska, have ineorporated their business under the name of Marshall Bros. Co.

The new company is taking in all of the nursery stoek, orchards, live stoek, implements, ete., and in short all personal property owned by the firm, buying in the offiee property and the original 80 aeres of nursery ground eontaining the paeking house, eellars and some four or five tenant houses. The balanee of the ground, eonsisting of about 3000 aeres, a part of whieh was ineluded in the former partnership is now being drawn out of the business and held individually by some of the above named parties. Some of it, however, loeated at or near the nursery will be leased baek to the new company to be used in the business.

The Marshall Brothers started growing nursery stoek in 1887. G. A., C. C. and H. W. grew and sold this in the start to farmers and home owners in Washington eounty. By gradually inereasing their sales foree from year to year, praetieally the whole state as well as mueh territory in neighboring states is now worked by a large force of salesmen eaeh year. It has been a business enterprise that has gradually grown, eaeh year showing a substantial gain, from nothing to one of the largest concerns in the west. None of the boys had any previous experienee in growing or selling trees and plants but by thorough applieation, close study, hard work and good judgment they have made a sueeess and are now reeognized as leaders in hortieulture in the eentral west.

DOINGS OF ENTOMOLOGISTS

Dr. L. O. Howard has reeently been eleeted a member of the National Academy of Seiences and President of the Washington Aeademy of Seiences.

Mr. B. R. Leaeh, Bureau of Entomology, has returned to his permanent headquarters at Winehester, Va., where he will eontinue his investigations of the woolly apple aphis.

Mr. E. H. Siegler, Bureau of Entomology, who has been in Washington for the past few months, has now returned to his field headquarters at Grand Junetion, Colo., where he is engaged in eodling moth investigations.

Mr. E. W. Geyer, Bureau of Entomology, formerly in eharge of the laboratory at Roswell, N. M., has severed his eonnection with the Bureau and Mr. R. J. Fiske is now in eharge of this laboratory and is engaged in eodling moth investigations.

Mr. W. F. Turner, who has been assisting Mr. A. C. Baker at Vienna, Va., in life-history studies of plant liee, resigned from the Bureau of Entomology to aeeept appointment with the Georgia State Entomologist, with headquarters at Thomasville, Ga.

Mr. D. Isely, Bureau of Entomology, who has been in Washington preparing his notes on grape-inseet investigations, has returned to the field for the purpose of resuming investigations of the grape-berry moth and other grape inseets at North East, Pa.

In Palmer Park and North Cheyenne Canyon, within a short distanee of Colorado Springs, Colo., Mr. George Hofer, Bureau of Entomology, will make a study of *Agrilus acutipennis* var., in relation to the dying of oak trees within the City and Mountain Parks.

Mr. A. C. Baker, Bureau of Entomology, who has been engaged in life-history studies of plant liee, with headquarters at Vienna, Va., has been transferred to Washington, D. C., as permanent headquarters, where he will eontinue life-history studies of plant liee and systematie work with Aphididæ.

Mr. George S. Demuth, Bureau of Entomology, will leave soon for Winehester, Va., to resume the work on the effeet on bees of spraying fruit trees, in eo-operation with the Offiee of Deeiduous Fruit Inseet Investigations. The work will also probably be eontinued at a more northern point at a later date.

Mr. E. B. Blakeslee, Bureau of Entomology, who has been in Washington preparing notes on the subjeet of his field investigations, has returned to the field to resume his investigations of peaeh inseets and will spend a good deal of his time this season in the neighborhood of Springfield, W. Va., investigating the peaeh-tree borer.

Mr. H. G. Ingerson, Bureau of Entomology, who has been assisting Mr. Simanton at Benton Harbor, Mieh., in eonneetion with orehard-insecticide and spraying-maehinery investigations, after spending some little time in Washington in the preparation of his field notes, has now returned to the field for the purpose of undertaking investigations of the grape-berry moth and other grape inseets in northern Ohio.

From Journal of Economic Entomology.

Mr. Welch has been staying at his summer home at Mereer, Wiseonsin, but has now returned to Shenandoah, Iowa, preparatory to attending the Ornamental Growers Meeting in New York.

President John Watson has called a meeting of the Executive Committee of the National Association at that time and Mr. Weleh is planning to attend.



Ex-President E. S. and Mrs. Welch
Attending the Convention

HOW JAPS GROW MINIATURE TREES

For many eenturies the Japanese have elosely guarded the seeret of growing miniature trees. Indeed, until reeently they did not allow the trees to be taken out of the eountry; wealthy people kept them as art treasures. Now, in Ameriea, miniature trees bring a good price, and are used as house plants and table decorations. By following the plan here described almost any one can raise diminutive trees with little trouble, according to the Youths Companion.

Get a few large, thiek-skinned oranges and halve them. Remove the pulp and eover the outside of the skins with thick shellae. That will keep the skins from shrinking. Fill the skins with fine, rich soil, and plant therein a seed of whatever tree you wish to raise—or rather two or three seeds, to insure at least one good speeimen.

Make a stand of some kind so that the growing tree can be kept in an upright position, and set the plants where they will get plenty of sun; but do not keep them in a room that is likely to become overheated. Water them regularly, but not too profusely. After a time the roots will begin to eome through the orange peel. When that happens, eut the roots off flush with the outer surfaee of the orange peel, but be careful not to injure the film of the shellae.

It is the cutting of the roots that stunts the tree. When the tree has reached maturity, you can transfer it to a more attractive holder. Conifers such as cedars, pines and cryptomerias can be readily stunted; so also can other evergreen, as Ilex and *Citrus trifoliata*. Some miniature cedars have been known to last more than 500 years. Fruit trees such as the orange and the plum, blossom and bear perfect fruit.—*"Australasian International Nurseryman."*

SUMMER MEETING MARYLAND STATE HORTICULTURAL SOCIETY

The Summer Meeing of the Maryland State Horticultural Society will be held at Hancock, Maryland, August 29—30.

This will afford a splendid opportunity for the members from all parts of the State to see the great progress and development of the fruit industry of that section of Washington county. Within a radius of a few miles around Hancock there are growing about 300,000 fruit trees, both peach and apple, the majority of which are bearing. The principal object of the summer meetings is to permit the members to not only acquaint themselves with the great development of the horticultural industry in various parts of Maryland, but to also study methods practiced by the growers in the culture of trees and handling of the fruit.

The members of the Society, and all others interested in the industry are invited to assemble in Hancock on the evening of August 29th. A meeting will be held in the town hall, which will be addressed by prominent speakers. On Wednesday, August 30th, 9 a. m., the visitors will be conducted through the orchards of the vicinity in automobiles, as guests of the citizens and fruit growers of Hancock.

Dinner will be served at 1 p. m., and this will be followed by a general meeting, extending from 2 to 4 p. m. It is hoped to have a demonstration of packing apples and explanation of the new Maryland Apple Grading and Packing Law that went into effect July 1st, 1916.

A most helpful and pleasant outing is promised all who attend. The Committee of citizens and growers of Hancock extend a cordial invitation to all. Hancock will celebrate its Home-Coming Week during that time, and great preparations are being made to accommodate the visitors.

Hancock is located upon the Old National Pike, is near Berkeley Springs; the Potomac River and Canal pass by the town. Four garages will be available for accommodation of machines.

It is hoped that all fruit growers and others interested will plan to attend this summer meeting of the Society. Complete program will be issued shortly.

For further information regarding the meeting, write—
Secretary, T. B. Symons, College Park, Md.

Special arrangements are in progress for the annual meeting and exhibition of the Horticultural Society, which will be held in the Fifth Regiment Armory, Baltimore, "Maryland Week," November 14-18, 1916.

The National Nurseryman

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The leading trade journal Issued for Growers and Dealers in Nursery Stocks of all kinds. It circulates throughout the United States, Canada and Europe.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900

SUBSCRIPTION RATES

One Year in Advance $1.00
Six Months ..... .75
Foreign Subscriptions, in advance $1.50
Six Months $1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested by the Business Manager, Hatboro, Pa.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

Entered as second-class matter June 22, 1916, at the post office at Hatboro, Pennsylvania, under the Act of March 3, 1879.

Hatboro, Penna., August, 1916.

A WRONG IMPRESSION

In the Florists' Exchange of July 8th, editorial comment on the Nurserymen's Convention held at Milwaukee stated as follows:

"At last the members have awakened to the need of doing things more in accord with modern big business, but in some instances they may have overstepped the mark, as, for instance, in that part of their proceedings where they resolve to confine the wholesale prices for nursery stock purely to bona fide nurserymen, to the exclusion of buyers of large quantities of stock, among whom may be included many retail florists; or florists who do a large retail business. What is to prevent the florist tacking on the word 'nurseryman' to his title, just as so many tack on 'landscape gardener?' "

We feel quite sure that this is a false impression of the intention of the management of the Association. Their object is merely to confine the distribution of trade lists to those entitled to them, namely those who buy to sell again, and of course this includes the florists, as well as bona fide nurserymen and all other dealers in nursery stock. The main object is to prevent trade lists going to the private consumers, who plants on his own grounds or estate, to Parks, Cemeteries and to Landscape architects, who turn in the nurseryman's bill to their client at trade prices. Surely this is a worthy and desirable effort and if it only partially succeeds it will have been well worth while. There is nothing more demoralizing to trade than the present chaos in this respect.

The dealer in nursery stock, whether he be florist or nurseryman, has no protection whatever, as his customers can very likely purchase as cheap as he.

It is impossible for the retail buyer to go into a wholesale dry goods house, or wholesale house in any other line, of which there is an organized trade association, and purchase at trade prices, and why should it not be the same with the florist and nursery business?

The Editor of The Florists' Exchange further remarks:

"Then again, the auction markets which do a beneficial service to many hundreds or thousands of florists, small nurserymen, and the general public, are likely to be penalized or boycotted, and if not they, then the Holland and English or foreign firms that supply these auctions with nursery stock."

No one could make objection to auction sales if the buyers were exclusively florists and nurserymen, but we do not believe that The Flosists' Exchange would uphold this method of selling plants to the general public, giving them the privilege of purchasing their stock at the same price as the nurseryman and florist would have to pay. These auctioneers are selling to the general public at trade prices or even less. What advantage has the nurseryman or florist in such cases?

There has recently been considerable agitation in England along the same lines and we believe the nurserymen successfully boycotted the Dutch firms who carried out this reprehensible practice.

The Association may not be strong enough to carry out all it proposes, but they made a good start at the last convention, and it should have the support of all the nurserymen and the allied profession, the florists.

WHAT THE LAYMAN THINKS

Comment was made at the Convention that the Milwaukee newspapers gave so little space to the convention and a general feeling of disappointment was very evident.

Attention has been called to the following editorial which appeared in the Milwaukee Daily News of June 30th while the convention was in session:

For a layman's write-up the sentiments expressed are of extremely high order and it is well worth reprinting. It at least shows appreciation by the Daily News of the work of the Convention, and it is possible that many nurserymen did not see it.

The Nurserymen

More attention is likely to be given by the average man to political, advertising, and trade conventions than to a nurserymen's convention but there is no association of more importance to the world than the associations of those men who come together from distant parts of the country to exchange views on the conservation and development of tree life and production.

It is conjectured by some that the reason there are no trees on the great prairies of the west is because some accident in nature swept trees from the country and afterwards frequent prairie fires prevented the growth of seedlings until they could attain a size which would withstand the ordinary grass fire. In fact experience seems to prove this theory. Settlers have had little trouble in bringing groves to a good stage of development in a short time when care and protection have permitted trees to grow.

While the cultivation of fruit trees occupies the most of the attention of nurserymen, considerable time is given to the study of trees for lumber and of

trees and shrubs for ornamental purposes. A Thoreau can classify trees and point out the beauties which should be observed and admired by the less discerning man. A Burbank can by selection produce many beautiful forms of plant life and, as in the case of his development of the potato, produce changes which lessen the demands on the purse, but nurserymen commercialize these discoveries and introduce them to the homemaker. The nurseryman is not entirely commercial, however. He is in love with his business and he takes as much pride ordinarily in the development of the trees which he sells as he receives benefit in the commercial transaction.

There is not much blare of trumpets at a nurserymen's convention. The members meet quietly, discuss questions of importance and separate until the convention the next year calls them together. Their convention is the nearest illustration of planting a seed and waiting for growth, and the unfolding of the plant is no more certain than the spread of the new ideas which are received by the members as they attend the sessions and confer with one another. Unconsciously the people get the benefit of these conventions and the world profits materially by them.

WHAT ABOUT THE NURSERY EMPLOYEE

"The National Nurseryman" has often pointed out that one of the crying needs of the business is for more skilled help, but skilled help was not mentioned officially at the convention, in fact completely ignored.

We can hardly get away from the fact that a productive plant such as a nursery requires for its operation, first, proprietor or managership, second, skilled labor and common labor.

Some nurseries perhaps manage to get along with very little skilled labor but such a nursery must necessarily stay small and unprogressive. If we analyze most of the troubles voiced at the convention, such as poor packing, poor grading, wrongly named stock, or if we compare American grown with foreign grown stock, it usually sifts down in its final analysis to lack of skilled labor, nurserymen who are not proprietors or owners, but men whose whole life is devoted to the plants they grow.

What efforts are being made to train such men? Very little, if any, and we might even go further and say, some of nurserymen invariably learn their business at home, with perhaps a year or two at an agricultural college, which limits their experience and contact with the real grower and rarely develops traditions that develop a code or esprit de corps that is so essential.

If nurserymen would send their sons to other nurseries for a few years before taking charge at home, the next generation would be of wider experience and skilled help would get better recognition and there would be more loyalty among employees to the firm they work for, and a striving to grow better stock.

A man who works for wages alone without much interest in his work is merely common labor. What the business really needs is better defined A. P. F. C. and M. M. degrees.

It is very doubtful if a nursery employee is eligible to membership in the National Association under the present policy, at least there is no effort to encourage him to become one.

Manufacturing concerns in many lines with the aid of machinery, modern methods, etc., have eliminated their dependence on the skilled employee to a large extent, or at least have reduced it as much as possible, but in our business the human equation plays too large a part. More loyal, earnest, real plant growers would prove a paying investment and it is up to nurserymen to encourage and train them.

WILL THE ENTOMOLOGISTS LOSE THEIR JOBS?

According to the Chicago Daily Journal a wonderful machine has been developed that kills both bugs and undesirable plants.

A NEW BUG KILLER

"A new piece of agricultural apparatus has been developed for the purpose of combating the destructive bugs and undesirable vegetable growths by an application of steam to the soil penetrating some distance below the surface. The machine carries a steam generating plant and moves over the surface on a large drum, the periphery of which is staggered with protruding stream outlets in the shape of blades or spines. As the apparatus is drawn over the ground the spines imbed themselves in the soil and while in this position the steam is released and penetrates the soil for some distance around the outlet, killing the worms, larvae and bugs and the undesirable crop of weeds which seed themselves from one season to another."

BULLETINS OF INTEREST TO NURSERYMEN

Published by the U. S. D. of A.

Dewberry Culture. By George M. Darrow, Scientific Assistant, Office of Horticultural and Pomological Investigations. Pp. 19, figs. 12. Contribution from the Bureau of Plant Industry. June 12, 1916. (Farmers' Bulletin 728).

The White-Pine Blister Rust. By Perley Spaulding, Pathologist, Office of Investigations in Forest Pathology. Pp. 15, pl. 1, fig. 4. Contribution from the Bureau of Plant Industry, June 9, 1916. (Farmers' Bulletin 742). Suitable for general distribution.

SIXTH ANNUAL APPLE SHOW OF THE INDIANA HORTICULTURAL SOCIETY

The Sixth Annual Apple Show of the Indiana Horticultural Society this year will be held at the West Baden Hotel, West Baden, Indiana, a great vacation resort in the heart of the apple growing district, so that a very large attendance of actual producers is expected to be in attendance. A substantial increase in the value of premiums offered, and a strong program including both educational and recreation features, ending in the Second Annual Fruit Growers Banquet, will be some of the features of the Show.

This shows good lively management and it deserves success.

Notes from the Arnold Arboretum

Tree Lilacs. This name is often given to three large-growing Lilacs of northeastern Asia which are now in flower and are conspicuous objects in the Arboretum. These plants all have white flowers in large clusters, and differ from other Lilacs in the shape of their flowers. In all other Lilacs the tube of the corolla is much longer than the calyx and longer than the stamens which are enclosed by it, while in the Tree Lilacs the tube of the corolla is not much longer than the calyx and shorter than the stamens which are therefore seen when the flowers open. On account of this difference in their flowers the Tree Lilacs have been thought by some botanists to belong to a different genus to which the name Ligustrina was given, and this is now the name of the section of the genus Syringa in which they are placed. The three species are much alike and only differ in the shape of the leaves, in the size of the flower-clusters and in the time of flowering. They lose their leaves early in the autumn without any change of color, and in this early shedding of their leaves is found their only drawback as garden plants for they are all hardy, grow rapidly, are good in habit and bloom freely, although the flowers of one of the species, *Syringa japonica,* are usually produced more abundantly in alternate years. The first of these plants to bloom, *S. amurensis,* is a native of eastern Siberia and northern China, and is a small, bushy, rather flat-topped tree which in cultivation rarely exceeds twenty feet in height. The leaves are thick, dark green, long-pointed, from three to four inches long and from two and a half to three inches wide, and the spreading and slightly drooping flower-clusters are usually from twelve to fourteen inches long and broad. This plant was first raised in this country before 1870 in the Harvard Botanic Garden from seeds received from the Botanic Garden at St. Petersburg. It appears to be less commonly cultivated than the other Tree Lilacs. Judging by the climate of the region where it grows naturally, it will probably prove one of the best shrubs or small trees for the northern interior region of Canada and for the northern states of the Mississippi valley. *S. pekinensis* is usually the next of the three Tree Lilacs to bloom, although this year it is beginning to flower rather later than *S. japonica.* It is a native of northern China and is a shrub rather than a tree, although it sometimes grows in this country thirty feet high, with numerous stout, spreading stems distinctly drooping at the ends and covered with light yellowish brown bark separating into thin layers like that of some of the Birch-trees. The leaves are narrower than those of the other species, long-pointed, drooping on long stalks, and usually about three inches long and from half an inch to an inch wide. The flower-clusters, which are produced every year in immense numbers, are smaller than those of the other Tree Lilacs and are flat, very unsymmetrical, partly drooping and about five or six inches long and broad. This fine plant has been growing in the Arboretum since 1883 when it was raised from seeds sent here from Peking by the late Dr. Bretschneider. *S. pekinensis* has been somewhat distributed by American nurserymen and there are now large specimens in several Massachusetts gardens. The last of the three Tree Lilacs, *S. japonica,* is a native of the forests of northern Japan and a tree sometimes forty feet high with a tall stem sometimes a foot or more in diameter and covered with lustrous reddish brown bark like that of a cherry-tree, and comparatively small, spreading and ascending branches which form a rather narrow round-topped head. The leaves are dark green, lustrous, four or five inches long and about two and a half inches wide, and the flower-clusters, which are erect and more symmetrical than those of the other Tree Lilacs, are from twelve to eighteen inches long and from twelve to fourteen inches wide. This tree was first cultivated in the Arboretum from seeds sent here from Sapporo in Hokkaido in 1876 by Mr. W. S. Clark, the first president of the Agricultural College at Sapporo. The seedlings grow rapidly and in 1886 were fifteen or sixteen feet high. The Tree Lilacs are growing on the bank on the left-hand side of the Bussey Hill Road in the Lilac Collection, and one of the original seedlings of *S. japonica* which was planted in what was once a nursery can be seen on the left-hand side of the Forest Hills Road in front of the Crabapple Collection. This is the year for the abundant bloom of the Japanese species and the plants are covered with flower-clusters.

Salvia officinalis. This little aromatic shrub is now in bloom in the Shrub Collection. The flowers are bright purple, showy, about three-quarters of an inch long, and are arranged in erect, terminal, compound racemes six inches in length. This plant is a native of southern Europe and has been cultivated in Europe for centuries for medicinal and culinary purposes, and formerly was much used in making "sage tea." Although rarely seen outside of the kitchen garden, it is well worth a place as a flowering plant in a collection of dwarf shrubs.

Thymus Serphyllum. This is another fragrant plant of the same family as the Salvia, and is growing near it in the Shrub Collection where it forms a broad mat of light green leaves only a few inches high. In a few days this will be covered with innumerable small lilac-colored flowers. The "Mother of Thyme," as this plant is sometimes called, is an old inhabitant of gardens and is a useful rock garden plant. The fragrant leaves are sometimes used like those of the common Thyme in cooking.

Philadelphus purpurascens. This Chinese species is now covered with flowers. It is a large, vigorous shrub with long arching branches from which numerous branchlets spread at broad angles and are from four to six inches long; on these are borne on drooping stems the flowers which have a strong pungent and delightful odor, and are about an inch and a half in diameter with a light purple calyx and pure white petals which do not spread like those of many of the species but form a bell-shaped corolla. This is one of the most distinct and beautiful of all the Old World species, and one of Wilson's impor-

tant introductions from western China. It can best be seen in the Philadelphus Group on the Bussey Hill Road opposite the Lilacs.

Philadelphus inodorus. This native of the southern Appalachian foothill region, although the flowers are without fragrance, is for many persons the most beautiful plant of the genus. It is one of the medium-sized species with gracefully arching stems and pure white, cup-shaped flowers from an inch and a half to two inches in diameter. It is not often seen in gardens, although it was one of the first species of Philadelphus cultivated in Europe where it was first seen about the middle of the eighteenth century. The plants in the Shrub Collection and in the Bussey Hill Group are now covered with flowers.

A double-flowered Philadelphus. A Philadelphus raised by Lemoine and called by him Argentina is flowering for the first time on Bussey Hill Road. It is still a small shrub with erect, rather rigid stems now covered with large semi-double flowers which look like small white roses. More curious than beautiful, this addition to summer-flowering garden shrubs will perhaps be valued by persons who admire floral monstrosities.

Aesculus Harbisonii. This interesting plant which unfolds its leaves later than any other in this group and, with the exception of *A. parvifolia,* is the last to flower, is now blooming near the other dwarf Buckeyes. Two individuals of this peculiar plant appeared here in 1905 among a number of seedlings of *A. georgiana* and are believed to be hybrids of that species and the red-flowered variety of *A. discolor,* the two species growing together where the seed was gathered near Stone Mountain in central Georgia. The leaves of this hybrid are lighter green than those of either of its supposed parents; the flowers are borne on stout red stems in broad red panicles and are about three-quarters of an inch in length with a rose-colored calyx and canary yellow petals tinged with red toward the margins. The hybrid origin of these plants is shown by the fact that glands and hairs are mixed together on the margins of the petals, hairs only being found on the margins of the petals of plants of the group of Aesculus to which *A. georgiana* belongs and only glands on those of the plants of the group to which *A. discolor* belongs, so that when both hairs and glands are found on the margins of the petals of one of the Buckeyes it is good evidence that the plants are of hybrid origin.

Cornus racemosa. This northern Cornel has been largely used in the Arboretum in roadside plantations and is now conspicuous as the plants are covered with their small clusters of creamy white flowers. These later in the season will be followed by white, translucent fruits borne on bright red stalks. This Cornel blooms here with some of the native Roses and their pink flowers compose perfectly with the white flowers of the Cornel; and when these plants are used together, as along some of the Arboretum roads, delightful effects are obtained.

June-flowering Hydrangeas. For a quarter of a century *Hydrangea Bretschneideri,* a native of northern China, has been a favorite plant in the Arboretum. It is a large and vigorous shrub with dark green leaves and flat heads of fertile flowers surrounded, as in other species of Hydrangea, by a ring of pure white ray flowers. The largest plant of this Hydrangea in the Arboretum is at Mr. Dawson's house on Centre Street. Several of the Hydrangeas introduced by Wilson from western China are now in flower in the collection of Chinese Shrubs on Bussey Hill and for the first time show their real value as garden plants in this climate. The tallest and most vigorous of these plants is *Hydrangea Rosthornii,* which is already eight feet high, with flower-clusters eight inches across. *H. xanthoneura* is closely related to *H. Bretschneideri* and can only be distinguished from it by a slight variation in the shape of the leaves, and by the almost entire absence of hairs from their lower surface. The plants are now covered with flower-clusters which are about eight inches across. Two forms of this Hydrangea, var. *Wilsonii* and var. *setchuenensis* are also in bloom, and as garden plants are as valuable as the species itself.

Hydrangea petiolaris. There are now few handsomer plants in the Arboretum than the specimen of this climbing Hydrangea on the Administration Building, although the long-stalked white ray flowers which surround the clusters of fertile flowers are beginning to fall. There are about a hundred of the flower-clusters on the plant and many of them are eight or nine inches across and terminal on short lateral branchlets which stand out from the body of the plant and give it an irregular surface which adds to its beauty. This Hydrangea is certainly the best deciduous-leaved climbing plant which can be grown against brick or stone walls in this climate.

Potentilla fruticosa Veitchii. This white-flowered form of the widely distributed yellow-flowered Cinquefoil is an excellent garden plant in this climate. It is dwarf in habit, blooms freely every year, and the plants are covered with flowers during several weeks. It can be seen in the general Shrub Collection and with the other Chinese shrubs on Bussey Hill.

Potentilla tridentata is an excellent little rock garden shrub not often seen in cultivation. It is a native of eastern North America where, especially on the coast, it is common in rocky and exposed situations. The leaves are composed of three leaflets which are dark green and very lustrous, and the small white flowers are produced in several flower-clusters standing well up above the plant on long stems. This is well established in the general Shrub Collection where it is now flowering.

According to information received from the United States Department of Agriculture there is an outbreak of the true army worm in Maryland, Virginia, District of Columbia and other Atlantic States.

They recommend as soon as discovered spraying with a solution of arsenate of lead, 2 pounds to 50 gallons of water, or Paris green 1 pound; freshly slaked lime 2 pounds and 50 gallons of water.

Packing and Handling of Nursery Stock

Address before the Milwaukee Convention by W. T. Hood, Richmond, Va.

WHILE I have attended most of the sessions since 1887 at Detroit. I have always been one of the listeners and I do not know why I should be selected to address this meeting. This is my fifty-first year in the nursery business, starting between the plow handles at the Richmond Nurseries of Franklin Davis & Co., March, 1866. In the early years of the Richmond Nurseries most all of the stock, which consisted principally of apples, peach and pears were put up in bales—Mr. Franklin Davis was very particular to have all stock put up nicely and had men to do certain parts and they became expert in the work they did, especially those that put on the burlap, and those that roped up the bales and each man tried to see if he could not make the neatest package. Before packing season, a good supply of moss, fine hay, or oat straw, and long rye straw also burlap and rope was on hand.

In digging trees Mr. Davis would have them carried to the packing yard by men and heeled in. He was very particular about not getting them skinned and would not let the trees be placed in wagons. When he commenced to fill orders, Mr. Davis was right on the job and gave out the labels to men to go to the trenches and bring in the trees. Each variety was tied together, then proved or counted to see if the order was correct and then a tag tied on the top of the largest bunch of trees before being given to the packers. Two men who did nothing else—the packers, had rope and windlass, the rope had a pulley on it and one end was fastened to a post and was laid down in a small trough in the ground, straw was placed over the rope and the packers commenced to make up the bale by putting a layer of bunches of trees on the straw and then would sprinkle a little moss over the roots until the bundle was finished—bundles varying in size from twenty-five to two hundred and fifty first-class trees. As soon as all of the trees were together the rope was brought over the bale, through the pulley and under the bundle, through the trough and fastened to the windlass, then drawn as tight as could be drawn, a rope was then put around the bale and when properly tied the windlass was loosened up. The bale was then put to one side for the two men that strawed. They had a bed of rye straw with three or more strings under with which to hold the straw around the bale until capped and roped. The bale then went to the men who did the capping—the cappers would cut a piece of canvass large enough for the bale to be capped and would lay this down on the ground and put a layer of fine hay or oat straw and then sprinkle a little moss on the straw, they would also put a little moss under the end of the rye straw, around the bale and as soon as the cap was put on, the ropers put on the rope and the tags were placed on the outside of the bales. After the bales were finished they were taken to a pool, well or cistern about four feet deep which had a tripod, rope and pulley and windlass, and an iron basket and every bale was placed in the basket and put in water until it was well soaked—every bale packed during the day would be wet before the men stopped. When we were busy during the fall, I have seen fifty to sixty men filling orders and baling trees.

We do a retail business through agents and our business is made up of small orders, think we pack thirty thousand or more orders in the fall, and as we sell over a large territory, we sell a long list of varieties and a great many varieties we sell we do not grow and have to buy from other nurserymen, and I must say, that most nurserymen do not pack with proper material or with proper care. With our large list of customers whom we have to please, our desire is not only to supply them with proper stock, true to name, but we want to put up stock in such condition that when received by customer, he will not only be pleased with the stock but will be pleased with the manner in which it is put up, and if he is pleased we will not experience any trouble to retain him as a customer. In buying stock we very often find, if it is in bulk, that most of the parties we buy from use very little packing material and that either wheat straw, pine needles or a lot of old dirt and weeds that is only fit for the manure pile. In our packing we use mostly boxes in a great many sizes. Our standard length is ten feet and sizes from ten by ten heads to thirty-two by thirty-two. We also make length up to fourteen feet, our boxes are all paper lined, using what is called rosin sized paper forty pounds to a roll of five hundred feet, costing from 65 to 75 cents by the hundred rolls or more. We try to make our bundles run about fifteen to twenty first class trees, and twenty-five trees of 3 to 4 ft. sizes, as we find our men will pack better if the bundles are not too large. For wholesale orders, I think all first and second sizes should be put up in bundles of ten. Very small sizes should be in 25's and should have two labels on each bundle. For our retail orders we label everything, which is mostly done in the nursery row and we also label each rose, shrub and most all currants, grapes, gooseberries and raspberries. Doing this, we know that our customers are getting what the label calls for—all our small fruits are wrapped with canvas cloth or paper around the roots and most of the tops. If I could get the work done with our labor, think it would pay us to bag the roots of every order of trees before boxing. I will say that we provide plenty of shingle tow, excelsior for packing in boxes around roots of trees, every bundle being dipped in a thin mud before placing in box, we very seldom have a complaint from a customer about not getting their stock in good condition.

I should say that all small fruits which include currants, gooseberries, grape vines, raspberries and strawberries, should be tied in bundles of twenty-five and two labels put on each bundle, all sizes of California Privet as well as other varieties of privet should be tied in bundles of twenty-five. In receiving stock we find most nurserymen have different ways of packing, many still using the old methods of forty years ago,

packing all of one variety in a box loose and putting a string around that variety and then another variety with string around, until the box is full. Forty-seven years ago, one of Franklin Davis & Co's. agents sold a planter, a physician, 1000 apple trees and for some reason he would not take them when delivered at the station, and I was sent to make settlement with him, the purchaser made me take all the trees out of the box except the bottom lot to see if they were right before he would settle for them, and he remarked that he did not think a first class nursery would put up trees that way and that trees he had received from the north were tied up in neat bundles. During our shipping season I try to look after the packing, more than any other part, although I look after the digging as much as I can, as I wish to see that the trees are handled and not subjected to more exposure than is possible before they reach the packing grounds. One thing, I try to have men pile up the trees at the end of rows so that the roots will be away from the sun. I also like to see all stock received from other nurserymen unpacked to see if it tallies out right and see that varieties do not get mixed, as I find that some nurserymen only label one or two bundles of a lot, especially those handling blackberries and raspberries. The past spring, we placed an order for 1000 Victoria and 1000 Linnaeus Rhubarb plants which we wanted for our own planting, when received, they came in a box which was not full and only one lot was labelled and they were separated with a piece of paper that was not near large enough to cover the bottom lot in the box and no doubt they were mixed, also had another order for 1000 which came from another nurseryman who claims to be one of the largest, which were in a box that was twice as large as it should be.

We find that it is very unsatisfactory in buying evergreens from many nurserymen, as they do not handle them well and we have trouble with our customers. A few years ago we had to buy quite a lot of Irish Juniper for fall shipment, and we ordered them balled and when they came from the depot, the man brought them loose in the wagon. The boxes having been broken so badly they could not be handled. In packing they were put in very light boxes and no braces were put in the boxes. We buy evergreens for our own planting and have received many from France and Holland which are packed up a long time. We also buy some from nurseries near home, which mostly have to come by express and I am sorry to say that we will have better success with the foreign stock. This should not be the case. If our own home nurseries would use a little more care in handling, there would not be so much importing done. We find the French and Japanese do the best packing of stock—have received several shipments of Japan stocks, including pear, cherry, apple and Magnolias, most all of which have grown well.

I want to say in conclusion a few words about Mr. Franklin Davis, who some of the older nurserymen here knew and had dealings with. Mr. Davis started, I think, in spring of 1849 from Adams County, Pennsylvania with a one-horse wagon load of apple grafts—to Virginia to start a nursery. The second year when his trees had grown to salable size he went on the road to sell them and from that small beginning, he built up a large business by growing and selling his trees through agents. When the Civil War started he had a large stock of trees which were an entire loss as there was no sale there on account of the war. In the early days in the business, he worked all day in the nursery doing his correspondence at night, while he was not a public speaker, he was not only a good nurseryman but a good correspondent and he was not a man to become discouraged if anything he undertook did not prove successful. In his nursery work, he spared no pains to do his work well, using lines to plant all stock by and if stocks were to be planted, all were trenched out by spades and he was very particular to trace down straight before the planting was done. Mr. Davis was a good grower of trees, especially apples, knowing most of them by sight. He was also one of the most particular men about staking each variety, the stakes being made of dressed lumber 1¼ by 2 inches and 26 inches long and they were painted and the names put on in letters, he was very careful to have the stakes put down straight at the end of rows and very particular to keep roads clean. Mr. Davis was not only a nurseryman, but a fruit grower as well, planting large acreage of peach, pear and small fruits, having one orchard of 20,000 Bartlett standard pear. He tested all varieties, having 400 varieties of apple and 100 varieties of peach. He was one of the pioneer growers of strawberries, planting largely on the James River between Richmond and Norfolk, during 59 or 60 for New York market, also the first to plant at Goldsboro, North Carolina which has developed such a large business in Eastern North Carolina. Mr. Davis built up a good name in his business at Staunton Nurseries which he brought to the Richmond Nurseries, and was the foundation of a fine mail order trade, and most of the customers, both mail order and through sales of agents, left the selection of varieties to him which he was very particular in making.

ROYAL PALM NURSERIES

Recent improvements at the Royal Palm Nurseries, Oneco, Florida, are a large extension to the lath houses, new office building and equipment, and more acreage added to the experimental planting, mainly devoted to the new hardy avocados, but also a large number of new importations will be tried out in addition to the hundreds set the past few years. Valuable information is being gained from this experimental work, along the lines of the Government station work at Miami and elsewhere. The late P. W. Reasoner began importing new plants and trees from all over the tropics in 1885, about 12 years before the Bureau of Plant Industry took up this work, and hundreds of valuable fruit and economic plants, as well as ornamentals were introduced for the first time into America.

The *Litchee* of China and South Asia has been fruited this year for the first time in Florida at the Royal Palm Nurseries. Very fine large fruits, fully matured on two young trees set in 1910. This will be a splendid addition to Florida fruits; the tree being more hardy than most tropical subjects, standing sharp frosts.

Report of the Transportation Committee

AT the last meeting of the Association, the Transportation Committee was instructed to take up with the Official Classification Committee the question of having the fifth class rating covering trees in car lots restored, which had been changed to fourth class.

The writer appeared before the sub-committee at Chicago, July 8th, at which time he presented the resolution of Mr. Kelsey as passed by the Association, and otherwise endeavored to have them restore the former rating. The matter of packing and the increased cost of same was gone into fully, and also ratings which were in effect in the Western and Southern Classification territories were referred to but after the regular hearing, which followed in New York City, was advised that the Committee could not see its way clear to grant the request. Their letter of refusal is as follows:

> "At meeting of the Official Classification Committee in July, consideration was given to your letter of July 12th, following up your appearance before the Committee at Chicago on July 8th and also to the resolutions adopted by the Convention at Detroit on June 23rd—25th:—The committee considering in general the ratings of the Official Classification coupled with minimums applied thereto, and having in view the situation outlined in your letter of April 24th to the Interstate Commerce Commission in connection with the requested suspension of the provision making the fourth class rating to apply on nursery or florists' stock, did not feel warranted in recommending to the Official Classification lines any change in the carload conditions now in effect. It is felt that at lower than the fourth class carload rating, this traffic is not in reasonable adjustment with other items in the Classification and that at the fourth class rating the charges are not unjust nor unreasonable."

It was further suggested that failing to secure the change with the Classification Committee the matter should be taken up with the Interstate Commerce Commission, but the writer, after careful investigation and analysis of the rate, would advise against any such procedure as he believes it would be a useless expenditure of money with no results accomplished.

Your Committee endeavored to secure a compromise minimum of 18,000 pounds with fifth class rating, but the Classification people would not consider same, claiming it was out of line with the rating, but some of them intimated that if the nursery people would be willing to accept a 24,000 or 28,000-pound minimum the fifth class rating might be restored, but knowing this would not suit the nursery interests at all, and furthermore it being impossible to load such minimum in the average cars, such suggestion was not considered.

After the hearing the Executive Committee was advised of the results; also furnished some figures showing why it was not considered advisable to carry the matter before the Commission. Under the new rating, that is fourth class and 16,000 pound minimum, it figures from New York City to the Mississippi River 5½c per car, per mile, and six and nine-tenths mills per ton per mile. From Rochester and territory to the Mississippi River it figures five and forty-six hundreds cents per car per mile and six and eight tenths mills per ton per mile. From New York City to Rochester it figures seven and one-tenth cents per car per mile and 9 mills per ton per mile.

In the testimony that was produced in the 5 per cent. case, of which no doubt most of you are somewhat familiar, it showed that a large portion of traffic in many commodities was yielding less than 7 cents per loaded car mile, although the record shows that the railroad men ordinarily consider the average earning per loaded car mile should be more than twice that amount.

The expedited movement of freight is a part of the Transportation service. In the 5 per cent. case the interstate Commerce Commission suggested to the railroads in Eastern territory that they should avoid traffic which is unprofitable. Your Committee hasn't the space to cover all of the points and suggestions as outlined in the 5 per cent. case, but the Commission admitted that in the adjustment of some of the rates it would mean increases on many commodities.

Your Committee made a careful examination of the Official Classification and found that nursery stock at fifth class and 16,000-pound minimum was the only commodity with that rating in the Classification covering about 16,000 different commodities.

Going further, it was found that only about 40 commodities had a minimum of 20,000 pounds, and fifth class, and from the list below you will readily see that most, if not all, of them are of low value and non-perishable:

Christmas trees	Excelsior	Grass
Tow	Shredded wood	Flax straw
Fodder	Hay	Husks
Hair (cattle-hog)	Portable Boilers	Hemp and okra
Stalks	Rope	Swings
Palm leaves	Bran Dusters	Cotton Gins
Cotton mill machinery	Purifiers-middling	Sumac leaves
Reels (centrifugal)	Textile machinery	Moss
Threshers	Pulleys	Crushed cane sugar refuse
Fan mills	Band cutters	Sugar cane
Kegs, wood	Bristles	Hair cloth clippings
Chaff-straw	Shavings	Factory sweepings
Corn stalks	Cotton motes	Farm carts
Wood swings	Barrows, furnace	Some wagons & vehicles
Mining dump carts	Sleds and sleighs	
Washboards	Cotton waste	

From Vice President and General Counsel Traffic Service Bureau:

> "We can compile for you a statement of various analogous articles in the classification taking a minimum carload weight of 16,000 lbs., and show the rates applicable thereto.
>
> "However, as concrns the merits of the question, and the possibility of your securing a change in classification through formal proceedings before the Interstate Commerce Commission, we are rather reluctant to recommend your taking such steps. The average per ton per mile revenue of the carriers is a fraction over seven mills, and a revenue of nine mills or less on an article that is of a perishable nature, might not be considered unreasonable by the Commission. In addition, there are very few articles in the classification with a minimum as low as 16,000 pounds which have a rate better than third class and many of these articles are not perishabe in their nature.
>
> "Possibly you might persuade the carriers to increase the minimum in as much as you say you can readily load as high as 22500 lbs. and thus obtain a concession on the rate by the carriers, so as to make the revenue per car about the same."

From Railroad Official regarding the question:

"From a classification standpoint, it would appear to me that the nursery people have at the present time an advantage; at least the rating of fourth class is fair, considering the loading. If it could be shown that 20,000 pounds could be loaded, then possibly fifth class rate would not be out of line, but this, however, is questionable on account of the perishable nature of the commodity. Of course, there are some commodities, such as flax straw, hay, shavings, cotton waste, and possibly others, upon which commodity rates apply lower than the classification basis."

The following resolution by Mr. F. W. Kelsey regarding tracing:

"RESOLVED that it is the sense of this Association that action be taken as early as practicable, by the railroads and other transportation companies, in the adoption of a system of tracing all nursery stock shipments, in order that the needless and costly delays now incident to the shipment of this material be minimized or avoided.

"RESOLVED that this subject be referred to the Committee on Transportation with power."

No particular action has been taken regarding this resolution as in the judgment of your Committee it would be a useless effort and an expenditure of money.

The following resolution by the American Railway Association will explain in part why no action was taken:

"RESOLVED that the American Railway Association concurs fully in the resolution of the executive and traffic officers as expressed in their resolution following, and that its members be requested to use every effort to have the traffic officials of their lines take action to curtail this practice.

"It is the sense of your Committee that tracing of shipments, either by wire or mail, should be confined to shipments which show unusual delay in transit; that no tracing should be done until, in the usual handling of freight, shipments should have reached destination. It was intended by this that the practice of tracing from initial point to destination, immediately the freight is offered for shipment, and advising delivery of furnishing passing reports to shippers or consignees, be discontinued."

"Indiscriminate and unnecessary tracing impairs the effectiveness of the service. Better results will be obtained if tracing is confined to actual needs. We solicit your cooperation."

Also the following from railroad Traffic Department:

"I have secured copies of our Waybills, together with placards used on our cars, and also copy of instructions governing the handling of freight traffic in which you will note that nursery stock is classified under "EXPEDITE FREIGHT." In other words, this class of traffic is given preference over a large number of other items, as will be noted by the publication referred to. Cars likewise are placarded and the train service on expedite freight is superior to other classes of service. To my mind, any tracing by shippers of the class of traffic which you handle does not facilitate the movement of the shipments. You will see that the traffic is billed on special waybills and is carded as special traffic; therefore, everything that the railroad can do is done to facilitate prompt movement."

I have here some cards, blank waybills and instructions from some of the carriers showing how time freight is handled and what efforts they are making to expedite such movements. From this we trust the Association will see that the railroads are endeavoring to the best of their ability to handle nursery stock and perishable frieght with the utmost dispatch, and while it is true some shipments will be delayed, no matter what system is adopted, we believe that on the whole the nurserymen have no great complaint to make on account of the slow movement of their shipments.

Tree Seed not Otherwise Specified—less than car loads—have been rated as first-class in all of the Classifications, but this question was taken up during the year with the Uniform and other Classification Committees with the result that effective January 1st, 1916, the Western and Official gave us third class rating and July 1st the Southern a second class rating. This does not affect peach seed which take a still lower rating.

Has the Carrier the Right to Require Prepayment of Freight Charges?

This question was submitted to the Transportation Committee and we referred same to the Vice-President and General Counsel of the Traffic World, Washington, D. C., and below we give his reply:

"The law gives the carrier the right to require a prepayment of his freight and may refuse to carry the goods unless it is paid. It does not bind the carrier to deal on credit and he may demand the price of his labor before it is performed. The federal counts have held that the common law right of requiring payment in advance of some customers, and extending credit to others has not been taken away by the Interstate Commerce Act, and does not subject the carrier to charge of discrimination by so doing. As a consequence, and especially with perishable freight, carriers frequently require charges to be prepaid or be guaranteed by the shipper."

Warning! The following paragraph is an exact duplicate taken from one of the letters received from a nurseryman by our company a few months ago:

"Ship all plants with your tree orders, ninety-five per cent. of the nurserymen this past year shipped their stock to their packing houses and then they went out to their patrons with their tree orders."

As no doubt all of the nurserymen know, strawberry plants and not dormant nursery stock take a first-class rating, in boxes less than car lots, while trees and shrubbery and other dormant nursery stock, takes third class, in Western and Southern territory and Rule 25, in official, therefore, if the nurserymen are combining not dormant stock and dormant shipments as stated by this party, it will only be a matter of time until the carriers become aware of the fact, in which case your freight rates will jump from third to first class, which would mean an increase of from 50 to 65 per cent. Furthermore such practice is in direct violation of the act to regulate commerce and is subject to both fine and imprisonment.

Your Committee trusts that with this warning all nurserymen, especially members of this Association, will use their efforts to see that such practice is discontinued.

Change in Minimum Southern Classification Territory: The Southern Classification have placed on their June docket the question of adopting the Official Classification minimum instead of that now in force, and if so, it will be in favor of the nurserymen, as the following figures will show:

Minimum Car Load Weights—Western Classification, Rule 6, B.

14,560	lbs.	cars	33	ft.	6	in.	and	under					
15,040	"	"	over	33	ft.	6	in.	to	and	inc.	34	ft.	6 in.
15,520	"	"	"	34	"	6	"	"	"	"	35	"	6 "
16,000	"	"	"	35	"	6	"	"	"	"	36	"	6 "
16,480	"	"	"	36	"	6	"	"	"	"	37	"	6 "
16,960	"	"	"	37	"	6	"	"	"	"	38	"	6 "
17,440	"	"	"	38	"	6	"	"	"	"	39	"	6 "
17,920	"	"	"	39	"	6	"	"	"	"	40	"	6 "

18,400	"	"	"	40	"	6	"	"	"	"	41	"	6 "
18,830	"	"	"	41	"	6	"	"	"	"	42	"	6 "
19,360	"	"	"	42	"	6	"	"	"	"	43	"	6 "
19,840	"	"	"	43	"	6	"	"	"	"	44	"	6 "
20,320	"	"	"	44	"	6	"	"	"	"	45	"	6 '
20,800	"	"	"	45	"	6	"	"	"	"	46	"	6 "
21,280	"	"	"	46	"	6	"	"	"	"	47	"	6 "
21,760	"	"	"	47	"	6	"	"	"	"	48	"	6 "
22,240	"	"	"	48	"	6	"	"	"	"	49	"	6 "
22,720	"	"	"	49	"	6	"	"	"	"	50	"	6 "

OFFICIAL CLASSIFICATION—RULE 27.

16,000	lbs.	cars	36	ft.	6	in.	and	under					
16,480	"	"	over	36	ft.	6	in.	and	not	over	37	ft.	6 in.
16,960	"	"	"	37	"	6	"	"	"	"	38	"	6 "
17,440	"	"	"	38	"	6	"	"	"	"	39	"	6 "
17,920	"	"	"	39	"	6	"	"	"	"	40	"	6 "
18,720	"	"	"	40	"	6	"	"	"	"	41	"	6 "
19,520	"	"	"	41	"	6	"	"	"	"	42	"	6 "
22,720	"	"	"	42	"	6	"	"	"	"	46	"	6 "
25,920	"	"	"	46	"	6	"	"	"	"	50	"	6 "

SOUTHERN CLASSIFICATION—RULE 24.

16,000	lbs.	cars	36	ft.	6	in.	and	under					
17,700	"	"	over	36	ft.	6	in.	and	not	over	38	ft.	6 in.
20,000	"	"	"	38	"	6	"	"	"	"	40	"	6 "
22,400	"	"	"	40	"	6	"	"	"	"	42	"	6 "
24,800	"	"	"	42	"	6	"	"	"	"	44	"	6 "
26,400	"	"	"	44	"	6	"	"	"	"	46	"	6 "
27,200	"	"	"	46	"	6	"	"	"	"	48	"	6 "
28,800	"	"	"	48	"	6	"	"	"	"	50	"	6 "

The above lengths are inside measurements and if refrigerator cars the length between ice bunkers. If small car is ordered and larger one is furnished, the minimum will be that provided on the small car.

PREPAYMENT OR GUARANTEE

Rule 34, Section 2 Western Classification

Rule 16 Section 2 Official Classification and Rule 34 Section 2 Southern Classification read as follows:

"Freight on which prepayment is required may, on approval of the General Freight Department of the carrier with which the freight originates, be forwarded on the guarantee of the shipper that all charges will be paid at destination."

The foregoing represents in a general way what has been accomplished or attempted during the past year.

Respectfully submitted,

CHARLES SIZEMORE, *Chairman.*

WORKMAN'S COMPENSATION APPLIES TO NURSERY SALESMAN

Following a ruling that W. A. Brundidge's employment as a nursery salesman came under the compensation law, he was awarded $91.97 for injuries received while delivering trees for Orville D. Green, Syracuse. N. Y., to customers in Massachusetts.

LILIUM REGALE

The Missouri Botanical Garden Bulletin speaks well of the new lily, *Lilium regale,* which was discovered growing wild in Thibet about six years ago by Mr. E. H. Wilson. It says aside from the rare beauty of the flower, which is pink on the outside and white within—with the exception of a yellow throat—the plant has a number of advantages which will enable it to be cultivated extensively. So far as known *Lilium regale* is not subject to any disease and will flourish in any fair soil. It is perfectly hardy in the climate of St. Louis and when once planted need not be disturbed for years. The stem, which may bear as many as twenty-five funnel shaped flowers, is strong enough to withstand wind and rain without support and the pollen is so waxy that it does not readily fall off, discoloring the interior of the blossom.

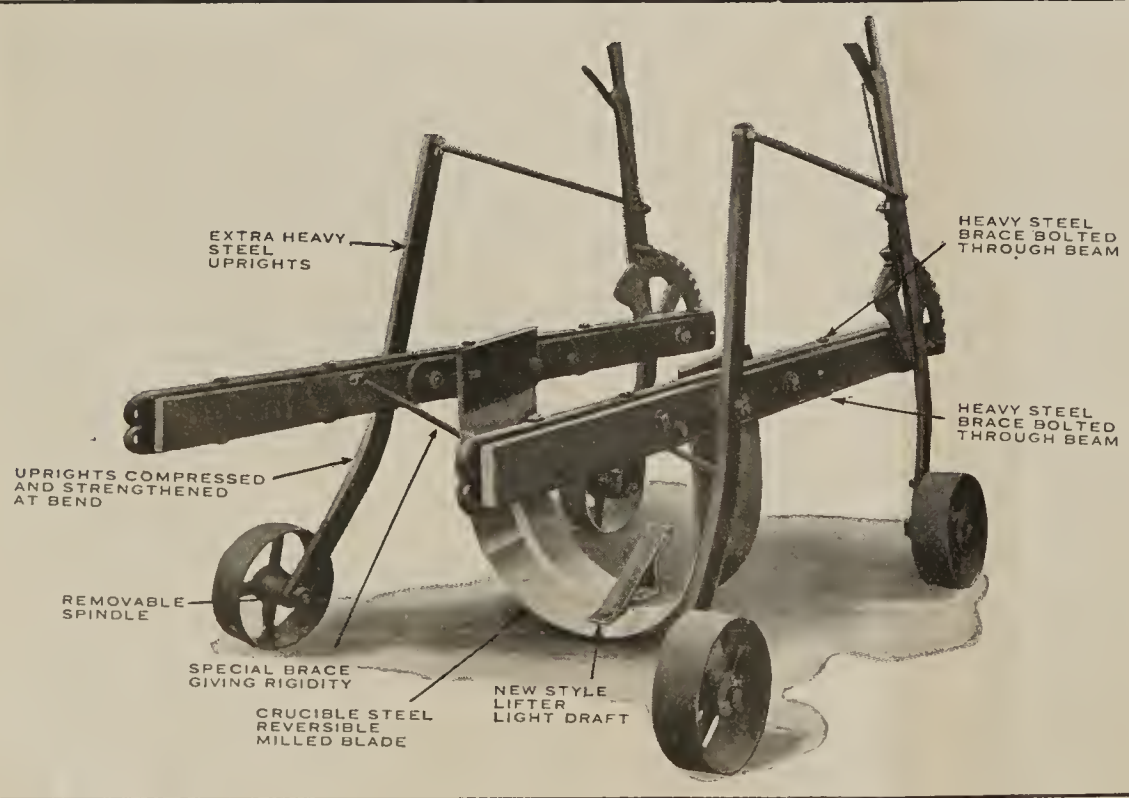
Some authorities believe it to be the finest addition to the garden which has been made in years.

BULLETIN ON SCALE INSECTS

Cornell University has published bulletin No. 372, "Reports on Scale Insects." This is a very fine work and is really the only treatise on scale insects published in the United States.

While perhaps it is primarily intended for entomologists, it should be a splendid help to all nurserymen and enable him to identify these pests and learn something about them. It is copiously illustrated with excellent plates, and is indicative of the splendid work that is being done for the public welfare by the entomologists.

It is by John Henry Comstock, Professor of Entomology Emeritus, Cornell University.



A Better Tree Digger for less Money

We now offer to the trade the new William P. Stark Tree Digger—with practical improvements that make it the strongest, most durable and most satisfactory digger on the market—and at a special low introductory price - - -

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Seasoned oak beams, reinforced by heavy, bolted steel brace.

Uprights of 3-inch steel compressed and enlarged at bend, giving additional strength.

Special brace from beam to blade makes digger run straight and easy.

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We furnish extra parts to fit this or any regular standard measurement digger at very reasonable prices. One of our new crucible steel blades with cut edges will double the life of your present digger. Blade alone, $35.00. Write for full details.

William P. Stark Nurseries

NEOSHO, - - MISSOURI

Newark, New York, July 25, 1916. Mr. G. C. Perkins, (of Jackson & Perkins Co.) and Mrs. Perkins returned last week from a two months trip on the Pacific coast. The return journey was made over the Canadian Pacific Railroad with stops at Vancouver, Lake Louise, Banff, Winnipeg and other points of interest.

AMERICAN ASSOCIATION OF NURSERYMEN

President—John Watson, Newark, N. Y.
Vice-President—Lloyd C. Stark, Louisiana, Mo.
Treasurer—Peter Youngers, Geneva, Neb.
Attorney and Secretary for the Association—Curtis Nye Smith, Boston, Mass.
Executive Committee—President, E. S. Welch, Shenandoah, Iowa, Chairman; J. B. Pilkington, Portland, Oregon, one year; Lloyd C. Stark, Louisiana, Mo., one year; J. H. Dayton, Painesville, Ohio, two years; H. B. Chase, Chase, Ala., two years; J. R. Mayhew, Waxahackie, Texas, three years; Theo. Smith, Geneva, New York, three years; Vice-President, John Watson, Newark, N. Y., ex-officio.

Chairmen of Committees

Transportation—Chas. M. Sizemore, Louisiana, Mo.
Tariff—Irving Rouse, Rochester, N. Y.
Legislation East of Mississippi River—Wm. Pitkin, Rochester, N. Y.
Legislation West of Mississippi River—Peter Youngers, Geneva, Neb.
Co-Operation with Entomologists—L. A. Berckmans, Augusta, Ga.
Program—L. C. Stark, Louisiana, Mo.
Exhibits—Albert F. Meehan, Dresher, Pa.
Arrangements and Entertainment—T. J. Ferguson, Wauwatosa, Wis.
Publicity—J. R. Mayhew, Waxahackie, Texas; L. C. Stark, Louisiana, Mo.
Editing Report—John Hall, Secretary, Rochester, N. Y.
Root Knot—E. A. Smith, Lake City, Minn.
Membership—Will B. Munson, Chairman, Denison, Texas.
Finance—J. H. Dayton, Painesville, Ohio; T. J. Smith, Geneva, N. Y.; John Watson, Newark, N. Y.

STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irvine Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

Canadian Association of Nurserymen—President, E. D. Smith, Winona; secretary, C. C. R. Morden, Niagara Falls, Ont.

Connecticut Nurseryman's Association—President, Walter E. Campbell, New Haven, Conn.; secretary, F. L. Thomas, Manchester, Conn.

Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Litooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell. Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, E. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, E. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York. Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio· secretary, W. B. Cole, Painesville, Ohio.

Oregon—Washington Association of Nurserymen—President, C. F. Breilhaup, Richland, Wash.; secretary, C. A. Tonneson, Tacoma, Wash.

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Andorra, Philadelphia. Secretary, Henry T. Moon, Morrisville, Penna.

Southern Nurserymen's Association—President, A. I. Smith, Knoxville, Tenn.; secretary-treasurer, O. Joe Howard, Pomona, N. Carolina.

Tennessee Nurserymen's Association—President, A. I. Smith, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Tennessee State Florists' Association—President, Karl P. Baum, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Deninson, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas.

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

NATIONAL COMMERCIAL APPLE GROWERS ASSOCIATION

A National Association is being formed with the above title, with H. C. Irish, 1227 Childress avenue, St. Louis, Mo., as Secretary. They expect to hold their first annual convention August 2 and 3rd. 1916, at St. Louis at the Warwick Hotel. The object of the Association is not intended as a horticultural society for the discussion of theoretical or cultural subjects, nomenclature, etc., but it is a business proposition for business men engaged in the business of Apple growing. Efficient co-operation among the members to eliminate waste and insure a more uniform market distribution than has prevailed in the past. It is a proposition of dollars and cents and since every grower intends to reap a good profit from his apple crop, he should make this organization help him by co-operating with the Association.

STATE ZOOLOGIST TO BE ASKED TO QUIT TO-DAY

Dr. Surface Announces on Hearing This That He Will Not do as Requested

Harrisburg, —July 17.—Dr. H. A. Surface, State Zoologist for the last decade or more, will be requested formally to resign to-morrow.

The State Commission of Agriculture suggested last week that intimation be conveyed to Dr. Surface that it would be well for him to resign, but he declined to quit and insisted upon the approval of the Governor. Also he demanded reasons for the order for him to resign.

To-day it is understood the Department of Agriculture received word that the Governor would approve its action, and to-morrow morning the zoologist will be asked to turn in his keys.

Dr. Surface told inquirers to-day that he would not resign. Also he promised to make a statement. Secretary of Agriculture Charles E. Patton to-night refused to talk about the matter.—*Philadelphia Press.*



REMEDIES FOR "CHIGGERS"

If a bath in hot water, or in water containing salt or strong soap, is taken with in a few hours after exposure in shrubbery and weeds infested with "chiggers," or "red bugs," no ill effects will be experienced. After a long exposure, however, a bath has practically no effect, and the suffering is severe, a dilute tincture of iodine or collodion should be lightly applied.

After irritation has set in, and small red spots appear, the application of a moderately strong solution of ammonia to the affected parts is recommended by the Department of Agriculture's entomologists. A supersaturated solution of bicarbonate of soda, or common cooking soda or saleratus, will afford relief. Liberal applications should be made until the irritation subsides. If direct remedies are necessary,

I herewith send check for renewal to your valuable magazine. We want its welcome visits continued. Spring trade has been good with us and the future outlook is splendid. Especially in the Landscape field. There seems to be special interest manifested in ornamentals in the middle states.

Very respectfully,

JOHN M. WISE. Freeport, Ill.

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WANTED—A competent assistant foreman, who thoroughly understands the nursery business and has had experience in this line, accustomed to waiting on private people, accurate in getting up orders, a good, thorough, active man who will take an interest in his work.

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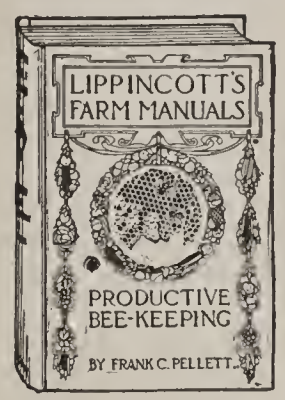
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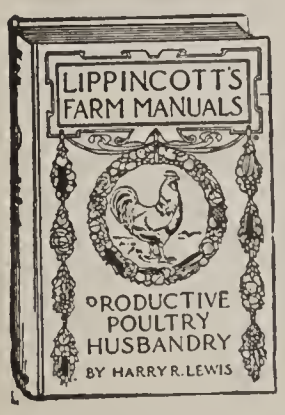
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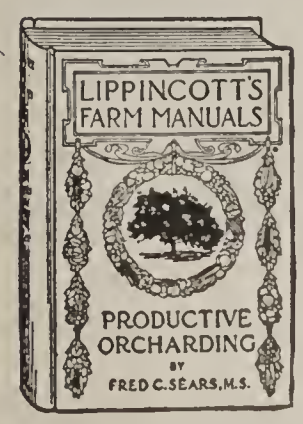
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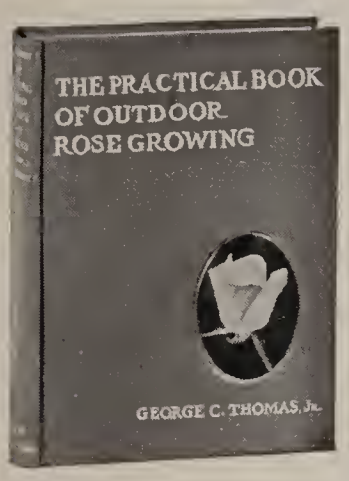
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12 inch

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18 inch
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12 inch
18 inch
24 inch
30 inch

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12 to 18 inch
18 to 24 inch
2 to 3 feet

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Catalpa Speciosa
1 to 3 inch
Elm, American
1 to 6 inch
Ginkgo
1 to 2 inch
Horse-Chestnut
2 to 3 feet
Locust, Honey
¾ to 1 inch
Locust, Black
1 to 4 inch
Maple, Silver
1 to 6 inch
Maple, Schwedleri
1½ to 2½ inch
Maple, Ash Leaf (Box Elder)
1½ to 3 inch
Maple, Sugar
1 to 2 inch
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You can work up a good profitable trade in Evergreens if you have the right kind of stock. Our main specialty for over half a century has been the propagation of young Evergreen stock for the wholesale trade in immense quantities at low prices.

We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S. A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

YOU want to keep posted on Evergreens;
WE want to become better acquainted with you;
Let's get together.

The D. HILL Nursery Co., Inc.

Evergreen Specialists
LARGEST GROWERS IN AMERICA.
Box 401 - Dundee, Ill.

SPECIAL NOTICE

APPLE QUINCE PEAR CHERRY
PEACH PLUM

A Fine Block of
Own Root Roses

ORNAMENTAL TREES SHRUBS
BERRIES CLEMATIS
EVERGREENS PEONIES PHLOX
and
HERBACEOUS PERENNIALS

Write for our Special Prices

SPECIAL ATTENTION given to Dealers, complete lists and carload lots.

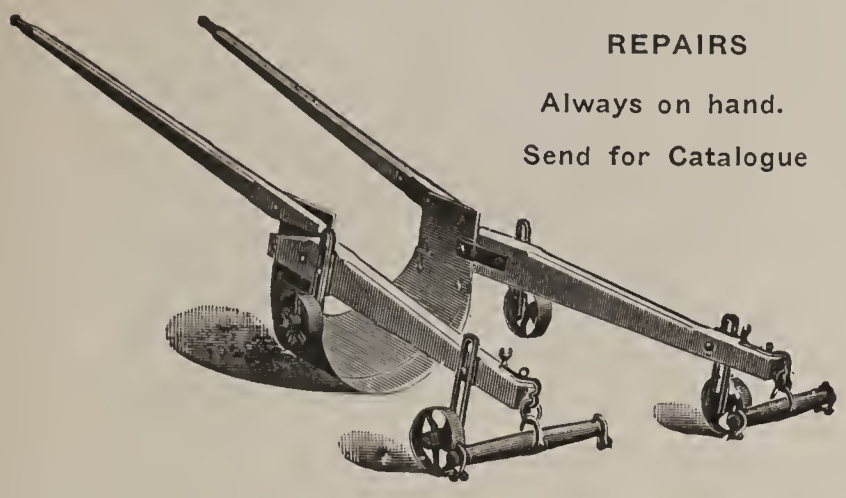
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GENEVA, N. Y.
70 Years 1000 Acres

1857 1916

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COMMON SENSE

TREE DIGGER



REPAIRS

Always on hand.

Send for Catalogue

Digger gets All the Roots at the rate of Twenty to Forty Thousand trees per day, and only needs same power as plow.

L. G. BRAGG & CO.

KALAMAZOO, MICH.

PRINCETON NURSERIES

Princeton, New Jersey

On the Pennsylvania Railroad, half-way between Philadelphia and New York; an hour and a quarter—or a dollar and a quarter—from either city.

Come and see us and let's renew old acquaintance; we want to show you what a good start we have made; plantings of three and two years ago are ready for market now; they include most good things that grow outdoors; a price-list is ready for distribution. If you would like to have one, let us know and we will put your name and address on our mailing-list.

We want your business—because we have the stock; we have the equipment to handle it properly; and the experience and ability to render efficient service.

September first.

J. H. Skinner & Co.

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FAll 1916

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Fruit Trees Small Fruits

Grapes

Rhubarb, Myatt's Linnaeus, Pure Stock

Shade Trees Flowering Shrubs

Catalpa Bungei

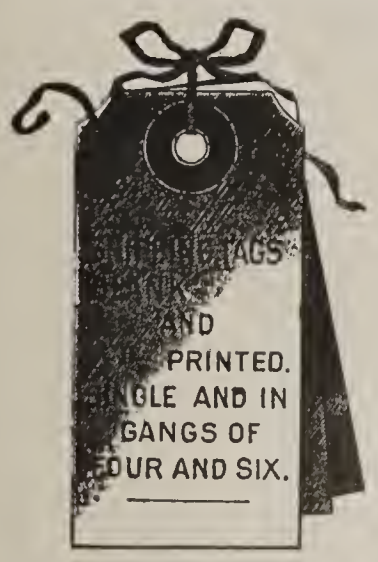
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AND EXAMINED THE QUALITY AND FINISH OF OUR

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PRINTED OR PLAIN, STRUNG OR WIRED?



This stock is especially adapted to the most severe usage, being thoroughly waterproof and weather-proof.

"Once used always used."

Send for samples and prices. Our references are the largest nurserymen in the United States.

The Denney Tag Co.

West Chester, Pennsylvania

ORNAMENTAL

TREES, SHRUBS, VINES, EVERGREENS
HARDY HERBACEOUS PLANTS
225 Acres

Entirely devoted to the growing of the best quality of ornamental nursery stock.

WHOLESALE ONLY

We also grow the "unusual" things, you cannot find elsewhere.

Small Trees and Shrubs for
Planting in Nursery Rows.

We shall have our usual supply for Spring delivery. Catalogue ready January first.

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Supply of our usual brands on hand at all times.

Thomas B. Meehan Co.,
WHOLESALE NURSERYMEN
Dresher, - Penna.

SPECIMEN EVERGREENS

IMMEDIATE SHIPMENT



Arbor Vitae, American, 3 to 4 feet.
" " " 4 to 5 feet.
" " " 5 to 6 feet.
" " Columbia, 2 to 3 feet.
" " Lutea, 3 feet.
" " Pyramidalis, 3 to 4 feet.
" " " 4 to 5 feet.
" " Tom Thumb, 2 feet.
Juniper Irish, 4 to 5 feet.
" Virginiana Glauca, 3 feet.
" " Sinensis, 2 to 3 feet.
" " " 4 to 5 feet.
Retinispora Filifera, 2 to 2½ feet.
" " Aurea, 15 inches broad.
" Obtusa Nana, 12 to 18 inches.
" Squarrosa, 2 to 3 feet.
Spruce, Kosters, 3 to 4 feet.
Boxwood, Pyramids, 3 to 4 feet.
" Standard
Rhododendrons, choice lot.

W. B. COLE, - - Painesville, Ohio

JOHN WATSON & CO.

Newark, New York

AGENTS FOR
F. DELAUNAY,
Angers, France

New Catalogue for Season 1916-1917 is now ready for distribution and will be sent on request. Nurserymen who like good stocks, evenly graded, properly packed, at closest prices and lowest importing expenses, should write us. We will gladly refer to last season's customers. One wrote: "Delaunay's stocks check up more good points in quality, grades and packing, than any others received." This referred to a two-car-load order. Another wrote: "Your importing expenses were the lowest." And this referred to a five-carload order. The combination of Quality, Price and Service that makes Value, is appreciated by buyers. If you want something better, for less, try us. We have shown others; we can show you.

August first, 1916.

EVERGREENS

Seedlings—Transplants

MILLIONS OF THEM

Arbor Vitae—American
Arbor Vitae—Compacta
Arbor Vitae—Douglas Golden
Arbor Vitae—Globosa
Arbor Vitae—Hoveys Golden
Arbor Vitae—Pyramidalis
Arbor Vitae—Siberian
Arbor Vitae—Tom Thumb
Arbor Vitae—Orientalis
Arbor Vitae—Orientalis Aurea
Arbor Vitae—Orientalis Pyr
Austrian Pine
Biota, 3 varieties
Black Hills Spruce
Colorado Blue Spruce
Douglas Spruce
Concolor
Englemans Spruce
Jack Pine
Norway Spruce
Norway Pine
Pinus Mugho
Pinus Flexilis
Pinus Ponderosa
Pitch Pine
Red Cedar
Retinispora, 3 varieties
Swedish Juniper
Scotch Pine
White Pine
White Spruce

Especially attractive prices on large orders

Also a Complete line of Fruit and Ornamental Stock

Sherman Nursery Co.
Charles City, Iowa.

The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

Stark Bros. Nursery & Orchards Co.
LOUISIANA, MO.

THE BEST IN NURSERY PRODUCTS

We carry a full line of fruit and ornamental trees, evergreens, shrubs, etc. Send us your list of wants.

Listed below are some real winners. If what you need is not here, write for our trade list.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Magnolia Tripetela, Japan and American Judas, English Walnuts, Japan Walnuts, California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Apples and Peaches, 10,000 Downing Gooseberries, 2 years, No. 1.

HOOPES, BRO. & THOMAS COMPANY
Established 1853 — West Chester, Pa.
Maple Avenue Nurseries
Philadelphia Office:
222-3-4-5 Stephen Girard Building — 21 South Twelfth Street



P. D. Berry, Wholesale Nurseryman, is offering for Fall 1916

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, Hydrangea, P. G., California Privets, Barberry THUNBERGII, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

Quotations furnished by letter.

P. D. BERRY,
Dayton, - Ohio

OUR STRAWBERRY PLANTS

As fine as ever grew. We have them on our own grounds (fresh new land). Plants strong, vigorous and healthy, with an abundance of fibrous roots. **Every plant guaranteed true to name.** No better anywhere, at any price. Our plants are hardy everywhere, where strawberries are grown. **BIG STOCK OF PROGRESSIVE, the best of all the fall bearing varieties.** Also full line of raspberries, blackberries, grape vines and other small fruits. We fill orders any time in November, December, January, February, March and April. Let us hear from you.

THE W. F. ALLEN CO.

100 Market St.,
SALISBURY - - - MD.

☞All plants tied 25 to the bunch and every bunch labelled.

We keep on hand large supply of
Nature, Fruit, Flower, and Shrub

PLATES

We design covers for nursery catalogues and also print inserts in natural colors.

CHRISTY COLOR PRINTING ENGRAVING CO.
Inc.
183 St. Paul St., - Rochester, N. Y.

We are now ready to quote lowest prices on
FRUIT, SHADE AND ORNAMENTAL TREES, SHRUBS, EVERGREENS, VINES and HERBACEOUS PLANTS

FOREST TREE SEEDLINGS we only have in limited supply this season, and would advise placing your orders early.

TREE SEEDS we can supply in limited quantities. Send list of your requirements for lowest prices. Trade list ready.

The Willadean Nurseries
Sparta, Ky.

Vincennes Nurseries, W. C. REED, Prop.
VINCENNES, - - INDIANA

Leading Specialties for Fall 1916
Cherry, Two Year, extra fine, leading varieties in car lots
Cherry, one year, 11-16 up and smaller grades
Our Blocks of Cherry are perhaps the largest in the country
Std. & Dwf. Pear, Japan Plum, Compass Cherry
Peach, One Year, Car lots or less
Weeping Mulberry and Bungei Catalpa
Hardy Budded Pecans and English Walnuts

WE OFFER

Grape Vines, Currants and Gooseberries
in all varieties and grades
—also—
Grape and Currant Cuttings and Light Grade of Vines for Lining Out in Nursery Rows
WRITE FOR PRICES
F. E. SCHIFFERLI, Fredonia, N. Y.

For **FUMIGATION** With
HYDROCYANIC ACID GAS
"CYANEGG"
Sodium Cyanide in egg shape, each egg weighs as near one ounce as possible. Destroys scale insects on Fruit Trees, Nursery Stock, Plants under glass and in Greenhouses.
Manufactured in U. S. A. by
The Roessler & Hasslacher Chemical Co.
100 WILLIAM ST. - NEW YORK, N. Y.

The Westminster Nursery
J. E. Stoner, Prop.
WESTMINSTER - - - MARYLAND
We offer for Fall 1916 and Spring 1917
500,000 PEACH, 40 Varieties, 1 year buds
CALIFORNIA PRIVET, 1 year and 2 year
ASPARAGUS, 1 and 2 year
SNYDER BLACKBERRY, root cuttings
DOWNING GOOSEBERRY PLANTS, 2 year
HYDRANGEAS, P. G., 2 to 3 feet and up
BARBERRY THUNBERGI, 2 and 3 year transplanted
Can supply the above stock in car load lots or less, also, have a large stock of Rhubarb, Cumberland Raspberry Plants, Spireas, Deutzia Assorted, nice specimen plants. Evergreens, Horse Chestnut, N. Maple, Lombardy Poplar and Planes, etc.
We will make attractive low prices for early orders
SEND LIST OF WANTS

Berberry Thumbergii Seedlings

Get our prices before placing your order.

C. E. WILSON & CO.
Berberry Specialists
MANCHESTER, - CONNECTICUT

WOOD LABELS

For Nurserymen and Florists
The kind that give satisfaction.
Facilities for the handling of your requisite, combined with the quality of our product is unsurpassed.
Samples and prices are at the command of a communication from you.
Dayton Fruit Tree Label Co.
South Canal St., Dayton, Ohio

ENGLISH NURSERY STOCK

GROWN IN LARGE QUANTITIES

RHODODENDRONS a splendid lot this season, fine bushy plants. Plenty of the hardy Catawbiense named varieties suitable for the American climate including the newer and superior kinds.
AZALEAS, ANDROMEDA, KALMIA and other American plants in great variety.
CONIFERS a large stock, of all hardy kinds.
HARDY ORNAMENTAL, EVERGREEN and DECIDUOUS TREES.
ROSES. Dwarfs and Standards in all varieties.
CLEMATIS AND CLIMBING PLANTS.
FRUIT TREES Espalier trained pyramids in quantity.
MANETTI ROSE STOCKS 1 year splendidly rooted from sandy loam, none better imported.
A general assortment of hardy outdoor stock. Glad to answer inquiries.

THIRTY YEARS SUCCESSFUL TRADING IN THE STATES

No Agents. Write direct for wholesale catalogue to

WALTER CHARLES SLOCOCK, Goldsworth Nurseries, Woking Surrey, England

Half an hours rail from London & S. W. Ry., Main Southampton Line. Cable Slocock Woking. (A. B. C. Code).

"We Raise Our Own Trees"

Evergreens

SEEDLINGS—TRANSPLANTS

Select from our specialized collection of young conifers for every place and purpose. Stock particularly suited for lining out and forest planting. Your order will have personal attention and the price will be right. Send for our catalogue and save money.

Discount to Trade

The North Eastern Forestry Co.
Box E. CHESHIRE, Conn.

V.G.'S VERY GOOD

HARDY NURSERY STOCK SUCH AS
AZALEAS, BUXUS,
CONIFERS, EVERGREENS,
PAEONIES, MAGNOLIAS,
RHODODENDRONS, ROSES, ETC.

Offered by

VAN GELDEREN & CO.

Wholesale Nurseries

Ask for Catalogue **BOSKOOP (Holland)**

FAIRFIELD NURSERIES

FRUIT AND SEED FARMS

OFFER *for Fall 1916*

GRAPE VINES—One and two years old. Varieties largely Moore's Early, Concord and Niagara.

Also Scarlet or Crimson Clover Seed and Cow Peas. Free from weed seeds, all recleaned and guaranteed first class.

Correspondence solicited. Price list upon request.

CHAS. M. PETERS

P. O. Address, Salisbury, Wicomico County, Md., R. F. D. 3

Long Distance Phone and Telegraph, Salisbury, Md.

The Framingham Nurseries

200 Acres
High Grade
Trees, Shrubs,
Evergreens,
Vines, Roses,
Etc.

DEAL TRADE MARK

Fine Stock
of
Rhododendrons
Kalmias
and
Andromedas

Send for Price List

W. B. WHITTIER & CO.

FRAMINGHAM, MASS.

We have a splendid stock of

Grape Vines

and other small fruit plants for the Nursery trade, graded up to the highest standard and sure to please you.

Give us a trial order, send in your list now for quotations

WHEELOCK & CONGDON

SUCCESSORS TO
WILLETT& WHEELOCK

North Collins, N. Y.

Foster-Cooke Co.

Nurserymen ***Fredonia, N. Y.***

Growers of

Grape Vines, Gooseberries, Currants

One and two years old. Graded up to the highest standard. Our stock never looked better. Write us for catalog. Send us your list of wants. Our prices are right, our stock A No. 1.

We grow our Stock up to QUALITY and GRADE, not down to a price. Nevertheless, our prices are always in line, you can't afford to pay less, and there's no sense in paying more. If you are pleased with what you have been getting, you will be better pleased with our stock.

JAPAN PEAR

The Japan Pear stock is proving to be a better grower—more vigorous and less subject to blight—than the French Pear. It is free from the root louse, and is the coming stock for the South and West. The Japan Pear will stand more drouth and more wet than the French Pear. We have great faith in the Japan Pear stock as a propagating stock and are growing it in large quantities. We will make very close prices. Our grades are the very highest and we guarantee the arrival of these stocks at your station in perfect condition. If you are a grower of pear trees try the Japan stocks.

F. W. WATSON & CO.,

TOPEKA, KANSAS

Apple and Pear Seedling Specialists.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK

The National Nurseryman Publishing Co., Incorporated

Vol. XXIV. HATBORO, PENNA., SEPTEMBER, 1916. No. 9



Flowering Branch of Elsholtzia Stauntonii

ELSHOLTZIA STAUNTONII

Earlier in the year when there are so many good flowering shrubs in bloom, the subject of our illustration *Elsholtzia Stauntonii* would hardly be worth more than passing mention. At this time of the year however, a dearth of bloom among the shrubbery and this plant is now in full bloom, a companion to the *Hydrangea p. g.* and the Althaeas, which insures for it a place in many plantings. From a nurseryman's point of view it might

be associated with the Verbena shrub, *Caryopteris Mastacanthus*, as it has somewhat the same habit of growth, hardiness and thrives under about the same conditions. Its height rarely exceeds five feet and in the colder localities it is almost herbaceous as the tops kill back. It flowers very freely having long terminal spikes, lilac-purple in color. It is especially adaptable for the foreground of shrubbery, but is apt to be a little straggling if not looked after and pruned back. Pruning may be done in the spring without interfering with its flowers, as it blooms on the wood of the current year.

It is propagated very readily from seed sown in the spring and may be also increased by soft wood cuttings in summer, but with this latter method it is not easy to carry the young plants over winter unless they be in a well protected frame or cool greenhouse.

To do its best it should be planted in a light soil and in a warm sunny position.

SHALL THE CONSUMER BUY HIS NURSERY STOCK AT WHOLESALE PRICES?

M. R. Cashman, Vice President Clinton Falls Nursery Co., Owatonna, Minnesota.

I have read with much interest Mr. A. C. Hanson's "Impressions of a Retailer on the 1916 Nurserymen's Convention" which was printed in the August number of your paper. This article of Mr. Hanson's is a good one and promises to start the ball rolling so far as bringing out discussions from various angles on this very important question. The great problem of "Shall the consumer buy his nursery stock at wholesale prices" should receive the attention of every nurseryman interested in the future of his business for to my mind it is a question of "Shall the traveling salesman be eliminated and nursery stock sold direct through catalogue or through wholesalers, or should the retailer, who does business through the traveling salesman, be considered as a necessary factor through which to distribute nursery stock to the consumer at prices that will enable him to make a living?"

I have been attending the National Conventions for the past ten years and my impressions of the various nurserymen attending the National Nurserymen's Convention leads me to believe that the nursery business throughout the country is being conducted by men above the average intelligence and business ability. There is no question in my mind that the nurserymen of the United States are fully capable to meet any trying situation that may confront them in their business. But it is really very astonishing to anyone either in or out of the trade who, noting the great variance in prices quoted by the different nurserymen, that such a chaos is allowed to exist in the business.

It is true that the wholesale prices in general are in a degree uniform and represent but a very small profit to the wholesaler for goods handled in large quantities. But when it comes to the retail end of the business, we find no uniformity in prices whatever. The reason for this is that many retailers fear that they will not be able to dispose of their goods unless they compete in a measure, with wholesale prices, which are being continually made to the consumer.

The retailer has been driven to desperation in his anxiety to discover some method through which he can dispose of his stock in competition with the big wholesaler and make enough profit to continue in the business. Of course, the retailer selling through agents must not only fix his prices to cover the cost of the goods, when purchased at wholesale, plus the expense of handling and profit, but he must also add the commission paid the agent, the freight charges, the overhead expense, shrinkage on bad bills, and other unforeseen losses. He can fairly compete with any other nurseryman handling goods in the same manner that he does through agents, but he finds himself powerless to compete with the wholesaler who, after loading the retailer with his entire wants for the season, finds that he still has a surplus and quotes the consumer prices at wholesale and very often at cut prices on "clean-up" stock at the end of the season. In almost every community dozens of consumers can be found who will tell you that they buy their goods at wholesale and very often display price lists much below that which the retailer paid for his own stock in carload lots.

The American Public is alive to take advantage of every opportunity offered them when buying on the open market and they are fast becoming educated to use the mails to secure the lowest prices on every item they wish to purchase. The wholesaler has reaped a fat harvest by being able to dispose of his entire surplus through the mail to various planters and it is no wonder that the wholesaler is not in sympathy with any plan that would curtail the distribution of wholesale lists or the making of wholesale prices to those outside the trade.

The European War has added another burden to the retail nursery business in the United States. The excessive importation of shrubs, ornamentals and in fact all kinds of nursery stock has demoralized the wholesale market as well as the retail market and prices are now being made to planters based on the cost of production, not in America, but war-ridden Europe where 19 cents will buy 10 hours labor. Catalogues and price lists quoting European grown stock are being distributed broadcast through this country. Not, however, quoted as European grown, but under the name of well known American Nurserymen, and at prices so low that no dealer could meet, with stock grown by American labor.

Is it any wonder that the retailer complains and asks for some sort of protection for his business?

I believe the time has come when the nursery business will necessarily be handled either entirely through the

wholesaler or entirely through the retailer. But should the retailer be eliminated, every nurseryman knows that the business will be reduced to at least one-quarter of its present volume. 75 per cent of the nursery stock sold north of the Mason and Dixon line is disposed of through the traveling salesman. We must either protect the traveling salesman, or he must be eliminated from the field. No one will question this argument for it is not reasonable to believe that any prospective customer will pay $5.00 per dozen for trees to an agent when he can, by spending a two-cent stamp, buy them from the wholesaler at $1.00 per dozen plus the freight and wrapping.

The only argument that the wholesaler puts up against this point is that all of the buyers do not know that they can buy their trees at wholesale and that in this field there is business for the retailer. I ask "How long will such a field be fruitful?" The answer is "No longer than it will require for the wholesaler to discover the business and he will be there with his wholesale price list."

At the Milwaukee Convention the writer, as Chairman of the Committee on "Who is Entitled to Wholesale Trade Lists" made an effort to bring before the Convention a plan that would in a measure curtail the widespread distribution of wholesale surplus lists. My plan of allowing six nurserymen in each state with the Vice President as Chairman to furnish a list of nurserymen entitled to trade lists in their state met with strong opposition from the wholesalers present. Fortunately the retailers were strong enough to adopt this plan and the executive board was instructed to put it into operaion. It is to be seen whether the wholesalers will follow the instructions of the Convention. The opinion of many of the retailers at the present time is that the action taken at the Convention would not bring the desired result without some effective weapon to enforce it.

Would it not be the part of wisdom for the retailers of the United States to organize a purely retail Association with headquarters in some central west city, say Chicago, where yearly meetings could be held and the retail business thoroughly organized. I notice that in all other lines of business, the retailers have their associations while the wholesalers have theirs. A combination of the two cannot result in very much benefit to either side. If the retailers have their own organization, regulations can be made that will in a measure protect their business. The big wholesalers certainly respect the trade given them by the retailers, but if no protest is made, we cannot blame them for disposing of their stock through any avenue that is open to them. A protest in itself is ineffectual unless backed by an organization of business men banded together for mutual protection. The retailers should have such an organization.

A National Retail Nurserymen's Association would be beneficial in a great many ways. We are sadly in need of an effective Collection Bureau and this could be maintained at headquarters at less than half that the various nurserymen are paying for collecting their accounts through local attorneys and Commercial Collection Agencies. A National Retail Association, is, so far as I can see, a splendid solution to this whole question.

Now, it is evident from the various comments that have been made, that many of those engaged in allied trades did not understand the intent of the resolution adopted at the Milwaukee Convention. I wish to say that the Retailers have no desire whatever to eliminate from the trade any concern or individual actively engaged in the sale and distribution of nursery stock to the consumer. Florists, dealers, growers ,and retailers, alike, if buying nursery stock to re-sell are surely entitled to wholesale lists. But we do not propose to recognize competition that uses cheap nursery stock to draw trade to stores where other lines of merchandise is the principal stock. Neither do we intend to recognize as nurserymen or competitors, landscape gardeners who use as their argument in securing contracts that they can buy all their stock for planting at wholesale and who actually do submit wholesale lists to their clients who pay for their goods direct on a wholesale basis. The landscape gardener does not act as the agent of the nursery. On the other hand, he has declared that the planter for whom he does the work is his client and he acts as his agent. Why should he be entitled to a wholesale list any more than the planter himself if he wrote for it direct? The landscape gardener is one of the big thorns in the side of the retail nurseryman. He does the job for a client, supplies the stock at wholesale, while the next-door-neighbor, buying his stock at retail, considers, after seeing what his neighbor pays for his goods, that he has been robbed and this is the sort of sentiment that is being engendered toward the nursery trade in general. To these people the nursery business looks like a graft and when a comparison of prices is made, the nurseryman himself can hardly believe that he is engaged in an honorable business.

The landscape gardener is surely not entitled to any cheaper prices than any other buyer and he should be considered as being in exactly the same position as the building architect, who, we all know, is not able to buy lumber, brick, concrete or other material at wholesale prices.

Every nurseryman is interested in as large a sale of general nursery stock as possible and if we are to save the business, the traveling solicitor must be protected in the same manner as commercial drummers are protected by every other line of business. This is a vast country and the traveling solicitor in all lines of trade is the most effectual avenue through which all goods are sold. If we must have the traveling solicitor, we want the highest type of character to represent our business. Does anyone think that a man of good sound judgment and honorable principles would consider engaging in a business where he is required to ask from 100 per cent. to 300 per cent more for his goods than the customer can secure them for by simply spending a two-cent stamp? The wholesale price list is driving out all high class solicitors and many nurserymen are compelled to employ the trickster and crook to dispose of their goods.

There are many angles from which this question could be argued, but this article is already too long. I trust that the nurserymen who read your paper will give us some sort of an expression on this question. What do the Retail Nurserymen want? Are we strong enough to organize and protect our business, or shall we submit to the destroying agencies of the wholesale price list?

AMERICAN ASSOCIATION OF NURSERYMEN COMMITTEES APPOINTED FOR 1916--1917

It has been no easy task to make these assignments. I have tried to turn the work over to members that I knew would be interested and who would go ahead and do it. If some names seem to appear too often, it must be remembered that only a few of the members have taken an active part in the work of the association until very recently, and in making committee appointments, my only guide has been the members themselves. If, therefore, any member feels enough interest in any subject under consideration, to volunteer to assist the committee named, he is now invited to communicate with me or the committee chairman and he will be put to work at once.

Now, in connection with these committees, may I not say a word? I do not believe in one-man committees; I feel sure that the one-man always feels that the responsibility should be shared with him. For that reason, I have abandoned the old plan of having each committee to consist of only one member; the better plan it seems to me is to interest as many members as possible and to get them to working. The success of the association depends absolutely upon its being not a one-man nor a few-men association, but an organization conducted by all the members.

ARRANGEMENTS:

Thomas B. Meehan, Chairman, Dresher, Penna.
Wilmer W. Hoopes, West Chester, Penna.
Adolf Muller, Norristown, Penna.
Wm. Warner Harper, Philadelphia, Penna.
William Flemer, Springfield, N. J.

ARBITRATION:

The Arbitration Committee is the same as last year; they had hardly got started in the first year; their work was satisfactory, the members have the confidence of the association, and I saw no reason to make a change. But with respect to this committee, I shall propose at the next convention that some better plan of naming the members be adopted. I would suggest that each new president appoint two members; in that way, no one man would have the naming of more than a small minority of this important committee. It is somewhat different from any other committee we have, and it should be something like our Supreme Court.

W. C. Reed, Chairman, Vincennes, Indiana.
G. A. Marshall, Arlington, Nebraska.
A. E. Robinson, Lexington, Mass.
J. M. Pitkin, Newark, N. Y.
L. A. Berckmans, Augusta, Georgia.

EXHIBITS:

Albert F. Meehan, Chairman, Dresher, Penna.
Horton Bowden, Geneva, N. Y.
G. Hale Harrison, Berlin, Maryland.

PROGRAM:

Program. Having been the program "committee" myself and realizing the embarrassment incident to the preparation of a program, I have appointed a committee of three: Mr. Mayhew, who is a live-wire and in full sympathy with the aims and purposes of the association, is chairman; his associates on the committee will be Mr. L. C. Stark, who prepared the excellent Milwaukee program and Mr. C. R. Burr, who arranged the equally good Detroit program. These three should be able to make up a mighty good program for Philadelphia and, because of their recent experience in that line, can avoid duplication of subjects and speakers.

J. R. Mayhew, Chairman, Waxahachie, Texas.
Lloyd C. Stark, Louisiana, Mo.
C. R. Burr, Manchester, Conn.

REPORT OF PROCEEDINGS:

Curtis Nye Smith, Chairman, Boston, Mass.
Wm. Pitkin, Rochester, N. Y.
John H. Dayton, Painesville, Ohio.

NOMENCLATURE:

Nomenclature. By resolution, this committee was continued at the convention, as then organized and with the same appropriation, thus requiring no action on my part.

J. Horace McFarland, Chairman, Harrisburg, Penna.
Harlan P. Kelsey, Salem, Mass.
L. A. Berckmans, Augusta, Georgia.
Chas. J. Maloy, Rochester, N. Y.
F. L. Atkins, Rutherford, N. J.
Honorary Member: Prof. Frederick W. Coville, Department of Agriculture, Washington, D. C.

TARIFF:

Tariff. If this committee seems to be a large one, remember that as Mr. Rouse pointed out at Milwaukee, there are many different interests represented in our association and I have tried to have all those interests represented when making up the committee. I think they are. It is a good committee.

Irving Rouse, Chairman, Rochester, N. Y.
L. A. Bobbink, Rutherford, N. J.
Wm. P. Stark, Neosho, Mo.
J. W. Hill, Des Moines, Iowa.
Chas. E. Greening, Monroe, Michigan.
James McHutchison, New York, N. Y.
J. C. Vaughan, Chicago, Ills.
D. S. Lake, Shenandoah, Iowa.
W. H. Wyman, North Abington, Mass.
T. J. Smith, Geneva, N. Y.
John H. Dayton, Painesville, Ohio.

PRESS:

Press. It was suggested by Mr. McFarland that we entirely neglected an opportunity at Milwaukee, for the best sort of free newspaper notice. I have appointed a press committee to see that the Philadelphia and other

papers are kept informed as to the next Convention.

Ralph T. Olcott, Chairman, Rochester, N. Y.
Robert Pyle, West Grove, Penna.
Frank B. White, Chicago, Ills.
J. Horace McFarland, Harrisburg, Penna.
Adolf Muller, Norristown, Penna.

REVISION OF TELEGRAPHIC CODE:

Telegraphic Code. This should be of more value to us. It is sadly out of date, and I have appointed a committee to revise the code and bring it down to date and fit it to present day requirements and conditions.

R. C. Chase, Chairman, Chase, Alabama.
E. S. Welch, Shenandoah, Iowa.
J. H. Dayton, Painesville, Ohio.

HAIL INSURANCE:

Hail Insurance. Nurserymen have hail losses; if the losses could be borne by all, it would be well. The old-line companies do not take these risks, so I have appointed a committee to investigate the whole question of hail losses among nurserymen and to work out some plan for a Mutual Co-operative Hail Insurance Company among our members, and to report same at the next convention. If they can do this, they will have accomplished something worth while.

Frank A. Weber, Chairman, Nursery, Mo.
E. P. Bernardin, Parsons, Kansas.
H. D. Simpson, Vincennes, Indiana.
Milton Moss, Huntsville, Alabama.
F. H. Stannard, Ottawa, Kansas.

PUBLICITY:

Publicity. This committee was authorized by resolution of the Milwaukee convention, to be composed of nurserymen from the different sections and to report at Philadelphia upon a workable co-operative advertising plan, to give publicity to matters relating to nursery stock, to encourage its greater use and to enlarge our field.

F. L. Atkins, Chairman, Rutherford, N. J.
R. C. Berckmans, Augusta, Georgia.
Theo. J. Smith, Geneva, N. Y.
J. R. Mayhew, Waxahachie, Texas.
J. B. Pilkington, Portland, Oregon.
Henry Hicks, Westbury, N. Y.
Lloyd C. Stark, Louisiana, Mo.

DISTRIBUTION:

Distribution. This is a rather broad subject; the idea is for this committee to consider distribution in its broadest aspect and to suggest ways and means to increase our outlets in other ways than co-operative advertising which is left to the Publicity Committee. Anything, then, apart from newspaper and magazine advertising, comes within the scope of this committees work. In other words, what opportunities to sell more goods is the trade overlooking?

M. R. Cashman, Chairman, Owatonna, Minn.
A. M. Augustine, Normal, Illinois.
Maxwell Sweet, Dansville, N. Y.
Roy Underwood, Lake City, Minn.
E. S. Smith, Tippecanoe City, Ohio.
A. C. Hanson, Wauwatosa, Wisconsin.
John S. Kerr, Sherman, Texas.

LEGISLATION:

Legislation. This becomes one committee instead of two as heretofore. If the membership seems large, remember the work covers every state in the Union and some one must be looking after the legislative interests of our members, in every one of those states. Fortunately committee meetings are not necessary. While this is our most important committee and the most active, its routine expenses are the smallest.

William Pitkin, Chairman, Rochester, N. Y.
Peter Youngers, Geneva, Nebraska.
Irving Rouse, Rochester, N. Y.
Abner Hoopes, West Chester, Penna.
Thos. B. Meehan, Dresher, Penna.
J. M. Pitkin, Newark, N. Y.
J. H. Dayton, Painesville, Ohio.
E. S. Welch, Shenandoah, Iowa.
A. E. Robinson, Lexington, Mass.
W. P. Stark, Neosho, Mo.
W. T. Hood, Richmond, Va.
R. C. Chase, Chase, Ala.
W. H. Wyman, North Abington, Mass.
L. A. Berckmans, Augusta, Ga.
W. F. Ilgenfritz, Monroe, Mich.
E. W. Chattin, Winchester, Tenn.
N. W. Hale, Knoxville, Tenn.
W. C. Reed, Vincennes, Indiana.
F. H. Stannard, Ottawa, Kansas.
William Flemer, Springfield, N. J.
E. F. Coe, Ft. Atkinson, Wisconsin.
C. R. Burr, Manchester, Conn.
E. A. Smith, Lake City, Minn.

TRANSPORTATION:

Charles M. Sizemore, Chairman, Louisiana, Mo.
Traffic Manager for the Association.

LANDSCAPE:

W. H. Wyman, Chairman, North Abington, Mass.
F. L. Atkins, Rutherford, N. J.
J. M. Pitkin, Newark, N. Y.
Wm. Warner Harper, Philadelphia, Penna.
Thos. B. Meehan, Dresher, Penna.
H. P. Kelsey, Salem, Mass.

I believe these are all good, live, active committees. I believe every man named is interested in the association and its work, and that they will give a good account of themselves. All members of the association should consider themselves invited and urged to co-operate with any committee in whose subject they feel an interest, for the committees can not accomplish anything, no matter how hard they work, unless they have the support of the entire membership.

Yours truly,

JOHN WATSON.

E. R. Taylor, Topeka, Kansas, is having a glorious time at Fates Park, Colorado.

Business has been forgotten because the trout are biting so well. Mr. Taylor made a record of catching forty-two in a very short time and when trout are biting like that it leaves nothing to be desired.

PROF. JAMES G. SANDERS APPOINTED ECONOMIC ZOOLOGIST FOR PENNSYLVANIA

Nurserymen throughout the country and especially in Pennsylvania will be highly gratified to learn of the appointment of Prof. J. G. Sanders, Madison, Wisconsin, to the position of Economic Zoologist in Pennsylvania.

He is a man of sterling worth and ability and has had the necessary experience and training and is well qualified to hold the position and increase its usefulness.

Prof. Sanders is best known to nurserymen as the author of the "Model Horticultural Inspection Law," which has for its purpose uniformity of inspection throughout the United States.

A sort sketch of his career will show his qualifications.

James G. Sanders was born July, 1880, at Canton, Ohio. In 1896 he was graduated from the High School in



Prof. James G. Sanders,
As he appeared at the Cleveland Convention.

Mansfield, Ohio, and received his Ph. B. degree in 1901 from Otterbein University, Westerville, Ohio.

From 1901 to 1905, graduate student, fellow and assistant in Joology and Etomology under the eminent Prof. Herbent Osborn, Ohio State University, and in 1903 received the degree of Master of Arts from this University.

His Master's thesis, published in the proeedings of the Ohio Academy of Seience was, "The Scale Insects of Ohio," a review and deseription of more than eighty distinct speeies found in that state.

He was elected in 1903, to the honorary national scientific society of Sigma Xi.

From 1905 to 1910, "Scientifie expert" in the U. S. Department of Agrieulture at Washington, D. C. Also in charge of inspection of imported plants for the Department.

1910 to 1915, Professor of Economic Etomology in the University of Wisconsin at Madison, and Chief Inspector of Nurseries and Orchards, and of Inseeticides and Fungicides.

In 1912 he was elected Seeretary-Treasurer of the American Association of Official Horticultural Inspectors and as such drafted the "Model Horticultural Inspeetion Law" gradually being adopted by the states for greater uniformity of inspeetion.

In 1915 he was appointed State Entomologist of Wisconsin.

His publications include several bulletins and eireulars of the U. S. Bureau of Entomology; University of Wisconsin; Ohio Academy of Science; Wisconsin Department of Agrieulture; and scientific journals:—largely on horticultural inspeetion matters, and control of eeonomic insect pests.

He holds membership in the American Association for the Advancement of Seienee; American Association of Eeonomie Entomologists; Entomological Society of America; Ohio and Wiseonsin Academies of Seienee.

He is a member of the Delta Upsilon fraternity and the Masonic order.

It may be of interest to learn that Prof. Sanders is a eousin of Gene Stratton Porter of "Limberlost" fame, who has written so mueh to awaken Ameriean interest in nature study.

We congratulate Pennsylvania on securing the services of so valuable a man as Prof. Sanders and feel assurred that he will reeeive the hearty co-operation and support of all the Horticultural and Agricultural Soeieties of Pennsylvania.

A PURPLE LEAVED SMOKE TREE

Rhus Cotinus foliis purpureis

A few years ago we found in our seedlings of Rhus eotinus (Smoke tree) two plants quite differeni from the type. One had spoon shaped leaves bordered yellowish in the late summer and of a more conspicuous yellow in the autumn. A second one seemed more interesting. It had purple leaves. This small seedling was transplanted and we have had the pleasure to notiee its value as a deeorative plant. The leaves are of the same size as those of the eommon sort, but of purplish red, turning brighter in the autumn. The flowers are brown, red and yellowish. The feather like clusters are large, of a beautiful eolor in the way of those of the well known *Rhus cotinus atropurpureus.* The whole plant is as effeetive as a purple Barberry. It is quite hardy and has the property of eoming true from seeds. This will facilitate the rapid propagation of the variety. We expect to offer the first lot of these seedlings in the autumn of 1917. BARBIER & Co., Orleans, Franee.

Mr. Thomas Lane, of Dresher, was a visitor at the office of THE NATIONAL NURSERYMAN the other day, bringing with him eopy for the September issue. He expressed himself as well pleased with the result of the August advertisement.

Texas State Horticultural Society

By G. H. Blackmon, Dallas, Texas.

THE Thirtieth annual meeting of the Texas State Horticultural Society, held at College Station, Texas, was indeed a very successful one, well attended by an interested crowd of fruit and truck growers and general farmers. Some constructive work was started, that will no doubt end in something good for the society and beneficial to horticulture in Texas.

The society was welcomed to College Station by E. J. Kyle, Dean of the School of Agriculture and Professor of Horticulture. Dean Kyle spoke warmly for the Society and said that he always felt it a great honor to have the pleasure of welcoming the horticulturists of Texas to College Station, and he wished them a pleasant stay, and invited all to visit the Horticultural Department and Grounds, and to go into the details of the work that is being done at the college.

The welcome address was responded to by Eltweed Pomeroy, Donna, Texas, who stated that he did not feel that he needed any welcome to College Station, that he came there each year, and that was the annual meeting place, never-the-less we all appreciated the warm welcome that Dean Kyle had extended us and we would all be glad to go thru the Department of Horticulture.

The annual address of the President, Fritz Engelhard, Eagle Lake, Texas, was very interesting, and told of the work of the Society during the past year.

The report of the Secretary-Treasurer, G. H. Blackmon, Dallas, Texas, showed that the society had been short of funds during the past year, but even with that condition prevailing progress had been made, and that good had come from the work that had been done.

Dr. Webber, Dean of the Tropical School of Agriculture, University of California, Berkeley, California, delivered two very interesting and instructive addresses before the Society, both along the lines of plant breeding. Dr. Webber discussed general methods of plant breeding, and the production of new varieties. He emphasized the importance of hybridization in the production of new varieties among horticultural crops, for the reason the varieties are mostly propagated and kept true by means of parts such as buds, grafts, cuttings, etc. In his second address, Dr. Webber stressed the importance of bud selection in propagating by means of cuttings, scions, etc., exhibiting two branches from a nearby tree, one showing a thin growth and few fruits, the other showing a dense growth and a heavy setting of fruit, both branches coming from the same plant. He stated that it was his belief that the varieties of fruits could be greatly improved by the proper selection of buds, altho it had not been fully worked out, yet there would be no harm done in selecting buds from trees that were the most satisfactory and had proven meritorious over other individual trees. Dr. Webber also discussed the breeding of oranges, dwelling at length on the production of the different varieties of the citrange, which is a cross between the sweet orange and the Trifoliate orange.

Progress in the eradicating of the Citrus Canker in Texas was discussed by Ed. L. Ayers, Chief of the Division of Nursery and Orchard Inspection, for Texas. It was shown that conditions are much better in the citrus districts of Texas.

A paper on Jujubes was read by J. M. Ramsey, Austin, Texas, in the absence of his father. The trees of this fruit grow to a height of about 20 to 30 feet, very hardy, producing a fruit that at first slightly resembles a plum, but later does not, as it ripens the fruit takes on a brownish color that makes them very attractive. The tree is a very heavy bearer.

In his talk on a Botanical Garden and Arboretum for Texas, John S. Kerr, Sherman, Texas, mentioned a number of native plants, as well as others that should be brought into general use, and that such a garden should be maintained by the state. He also referred to other important gardens in the United States and their cost of maintenance.

A very interesting address was that of Judge Frank B. Guinn, Rusk, Texas, on Top-Working the Native Hickories to Pecans. Judge Guinn has probably had more experience along this line than any one in Texas. He now has several hundred hickory trees top-worked to pecans that are bearing. The western varieties scab too badly in the Rusk District of East Texas and for that reason the Eastern varieties furnish those that do best in that section. Judge Guinn stated that the Delmas, Schley and one or two other varieties are succeeding on Hickory, for him, better than any other.

W. B. Lanham, Extension Horticulturist, A. & M. College of Texas, discussed the value of the home orchard on the farm. He said that every farm growing the ordinary crops could grow fruits for home consumption. A table presented, taken from Census reports, showed that growers in Texas have been receiving as much for their fruit as those in other states.

The publication of an official paper by the Texas State Horticultural Society was discussed, and a plan that was suggested by G. H. Blackmon, Dallas, Texas, was considered and referred to a committee of three. This committee is to look into the diffecent plans and report its findings with recommendations at the winter meeting of the Society.

The officers for the year 1916-17 were elected as follows:

President, Fritz Engelhard, Eagle Lake, Texas.

Vice-President, Eltweed Pomeroy, Donna, Texas.

Secretary-Treasurer, W. B. Lanham, College Station, Texas.

Fifth Member Executive Committee, G. H. Blackmon, Dallas, Texas.

Executive Committeeman to Farmers Congress, John S. Kerr, Sherman, Texas.

The National Nurseryman

Established 1893 by C. L. YATES. Incorporated 1902
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THE NATIONAL NURSERYMAN PUBLISHING CO., Inc.
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Editor .....ERNEST HEMMING, Flourtown, Pa.

The leading trade journal issued for Growers and Dealers in Nursery Stocks of all kinds. It circulates throughout the United States, Canada and Europe.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900

SUBSCRIPTION RATES

One Year in Advance $1.00
Six Months ..... .75
Foreign Subscriptions, in advance $1.50
Six Months $1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested by the Business Manager, Hatboro, Pa.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

Entered as second-class matter June 22, 1916, at the post office at Hatboro, Pennsylvania, under the Act of March 3, 1879.

Hatboro, Penna., September, 1916.

PUBLISHING ASSESSMENTS

On a separate page we publish a circular letter from the office of the Secretary of the National Association of Nurserymen, in which it is proposed to publish the amount that each member has assessed himself under the new rules.

We doubt very much if such action would be advisable or even attain the desired end. Even if it did it would not be good business ethics, as such information should be held confidential and if published would work an injustice to some of the members.

Those who have paid the full amount of their assessment may not wish to have it published and it would be very unfair to them.

The Federal Government considers income assessments confidential as do also trade commissions and the Executive Committee should be guided by a rather fine sense of the propriety in such matters.

When this new method of raising funds to carry on the work of the Association was proposed, it did not meet with unanimous approval but the members evidently wished to give the new management an opportunity to test out their ideas, and it would be a pity to do anything that would be detrimental to the good work that is being done.

The assessments are voluntarily made and it is hardly courteous to publish the amount with a view of questioning a man's honesty. Even if this view is not implied by the proposal, the amount of business he does is his own private affair.

The Association should not take itself too seriously if it cannot attain its ends by voluntary support, any attempt at coercion will be sure to meet with failure.

HARDINESS

The word hardiness is perhaps the most misleading word the nurseryman has to contend with. He describes a plant as being hardy in the proper meaning of the term, but is very often interpreted by the customer in a very different way to that he intended. The average person seems to think that if a plant is described as hardy it will stand all sorts of conditions and abuse and if it fails in the winter they immediately think the nurseryman has misrepresented it. Every plant grower knows that the term when applied to a plant means, that given the proper conditions it is hardy enough to stand the cold in a given locality, but the term may be equally well applied to heat, drought, fungus, or any other condition that may have a bearing on the welfare of a plant. It is a well known fact that as many garden plants succumb to summer conditions as do to winter conditions or severe cold and very often a plant will fail in the winter in the latitude of Philadelphia, while it will come through uninjured in the latitude of Boston.

Every plant has its own particular isothermal line which more or less governs its geographical limit when growing wild. This can very often be extended when brought under artificial conditions and properly cared for.

A very good illustration of hardiness may be observed in the well known California Privet. This plant is say quite hardy as far north as New York, yet it is a well known fact that it will get winter killed in much more southern localities, especially if it is planted in heavy or undrained soil. Ripening of the wood has a very important bearing on hardiness. If a plant continues to grow until very late in the fall the chances are that the branches will be tender and get killed back, whereas if the wood thoroughly ripens up before frost it will remain sound to the tips even during the most severe weather.

Severe winter killing may be always expected after late warm fall that keeps the sap moving.

The word adaptability is really a much better term to use in connection with plants. The trailing arbutus is hardy enough as far as cold is concerned but how many succeed with it under cultivation. The same is true of the American Holly even in localities where it grows wild it is not an easy plant to bring under cultivation.

These two are extreme cases but the same is true to a greater or less degree in all plants.

THE LARGEST SASSAFRAS

Reading in The Gardener's Chronicle of America an article on the largest shade trees, we were very much surprised to note that the largest Sassafras in America is growing within a very few miles from the office of The National Nurseryman, and we of course promptly paid it a visit.

The tree is growing in an old burying ground at Horsham, Penna., and is 15 feet 10 inches in circumference at four feet from the ground. Unfortunately nothing remains of the tree but the trunk with one fair sized branch, still in vigorous growth. The trunk is hollow and shows signs of great age, and the size was certainly a revelation for this kind of a tree. How often it is that we have at our own back doors as it were, things that are unusual and wonderful and not know anything about them.

American Association of Nurserymen

OFFICE OF SECRETARY, 19 CONGRESS STREET, BOSTON, MASS., AUGUST 11, 1916.

To the Members of American Association of Nurserymen.

The Executive Committee of your Association, being instructed by the recent convention at Milwaukee, has caused to be organized, as a part of the Association's activities a *Credit and Collection Bureau* for the sole use and benefit of members, and under the management of Curtis Nye Smith, the Association's Counsel and Secretary.

This announcement can only briefly outline the Bureau's organization, uses and benefits, but further information can be secured from the Secretary.

The principal objects of this Bureau are—

1. Cheap, yet efficient collection of members' accounts.
2. Prevention of bad accounts by frequent publications of names of undesirable customers.
3. Credit Reports.
4. Free expert legal advice on Bankruptcy, Assignments and kindred subjects: acting as Trustee and Receiver.
5. The improvement of the standards of Credit.

To explain: A co-operative movement of many merchants in the same trade can compel desirable results in many matters where separate units, acting independently, have no remedy. In the matter of collecting bad accounts, nurserymen have, up to now, failed to use one of the most powerful weapons, namely, co-operation. By the Bureau's unique system of collection, impossible to secure by the ordinary methods of collection agencies and attorneys, the debtor knows, for he is told, that if his account is not paid on demand, his name will be published to the entire membership, and his credit will cease. This is a stern, but fair, compelling force for payment. Failing payment by this "Demand letter" the claim is vigorously pressed by the Bureau's attorneys and by the local attorneys in Debtor's home town. The entire service is comparable to and is as efficient as the best of the mercantile or collection agencies. It operates with equal effect on California, Florida, Maine or Canadian debtors. While the Association's counsel is in charge, yet the active superintendence of this work is with his assistant, an attorney having had long and successful experience in this work.

The fees, which are payable only in the event of actual collections are moderate and in some instances less than those of the reliable mercantile agencies and attorneys, as follows:

1. "Demand letter" (supra). Minimum fee $1.00; 5 per cent. on collections of $20.00 to $1000; 3 per cent. on excess of $1000.

2. Attorney Department. Fees 10 per cent. on the first $300; 5 per cent. on excess of $300 to $1000; 2½ per cent. on excess of $1000. Minimum fee $3.00; on items of $6.00 or less, 50 per cent. Minimum suit fee $5.00.

Where local bar rates govern, above rates necessarily supereeded.

Net revenue of the Bureau goes to the Treasury of your association.

There are certain regulations to guide members.

1. Each account shall be in duplicate, one copy being itemized.

2. At present, until the volume of business is ascertained, the accounts shall not be under $5.00 exclusive of interest, nor be over 9 months past due. We recommend, however, that accounts be sent for collection promptly after falling due as this will create better credit principles and relieve members of the expense and troubles of the labor of collection and prevent losses by delays. However, accounts more than 9 months past due will be accepted and vigorously pushed on receipt of filing fee of fifty cents.

3. Each account will show whether debtor is a nurseryman, dealer or retail customer by the letters "N," "D" & "R" respectively.

A valuable benefit to members is the *"Notification Sheets,"* giving the names and addresses arranged alphabetically and geographically (i. e. by states) whether nurserymen (N), dealer (D), or retail customer (R), of delinquent, undesirable or unworthy customers. These sheets are made up from the accounts actually sent in for collection, and so, live information. They are periodically issued, more frequently prior to and during the shipping season. They can save thousands of dollars to members.

Credit Report—Information within knowledge of Bureau, free. Special local reports, fee 60 cents.

The Bureau is fully organized equipped and awaits the opportunity to serve members. The Executive Committee recommends that all members send their accounts for collection to the Secretary because this Bureau is an association activity and is supported by fees earned. It is hoped, besides, to make a reasonable profit for the general expenses of the association, thereby directly benefiting the members in addition to the great benefits of the service itself.

CURTIS NYE SMITH, *Secretary.*

The U. S. D. of A. reports on a soil survey of Lancaster County, Pennsylvania. This county has long ranked as one of the leading general farming communities in which intensive farming methods are employed. It seems that the high rank of this County has been brought about by its systems of crop rotation rather than the inherent quality of the soil, although, of course, the soils have an important bearing on the results. There are thirty-six distinct soil types in the county and all have been made very productive. Generally a four or five or even six year rotation is practiced, although on some soils this is lengthened to six or reduced to three on the small farms. Grassland is plowed for corn, which in turn is followed by tobacco for one year, then wheat, seeded to timothy and clover. In the five year system the land is allowed to remain in sod for two years. In the six year rotation wheat and grass are grown two years. The three year rotation consists of corn, tobacco, following grass land and followed by wheat.

Obituary.

JACKSON DAWSON

With the death of Jackson Dawson the horticultural world has lost one of its most notable characters. He was a worker rather than an advertiser and as such he rose to international fame.



The late Jackson Thornton Dawson.

Mr. Dawson's death occurred on August 3rd at his home at the Arnold Arboretum, Jamaica Plain, Mass. He was in his 75th year.

An Englishman by birth, he came to this country when he was four years old, and began his life among plants at the early age of eight, at the nurseries of his uncle at Andover, later going to Hovey's, one of the leading establishments at that time.

Mr. Dawson served during the Civil War, being wounded twice.

His introduction to a large public came through his recognition of the Scottish heather which had been growing wild in Massachusetts and his making the fact known to the world. He found the heather at Tewksbury.

In 1871 he was offered a position under Francis Parkman of the school of horticulture of the Bussey Institution. Then after two years Prof. Sargent took the place of Mr. Parkman, and a little later he became director of the Botanical Gardens of Cambridge. Mr. Dawson supplied him with plants for the gardens, and thus he became familiar with plants from all parts of the world. He was handling plants from Japan, Hawaii, South Africa and other remote regions, and sometimes as many as 25,000 a year were exchanged with different institutions.

To have met Mr. Dawson and talked plants with him was a treat long to be remembered for no man could have a more intimate and profound knowledge of plants than he, and it was the kind of knowledge that he could apply in his work of hybridizing, grafting and propagation.

He was a king among plantsment. He loved plants, gave his life to them, and they seemed to love him.

Mr. Dawson's family is also intimately connected with horticultural and floricultural activities; his son Charles is in charge of the Eastern Nurseries, while Fred, another son is an associate member of Olmsted Brothers, the well known landscape architects; a third son is an artist in the University of Pennsylvania, and a daughter teaches horticulture at Groton, Mass., and has been interested in our native plants.

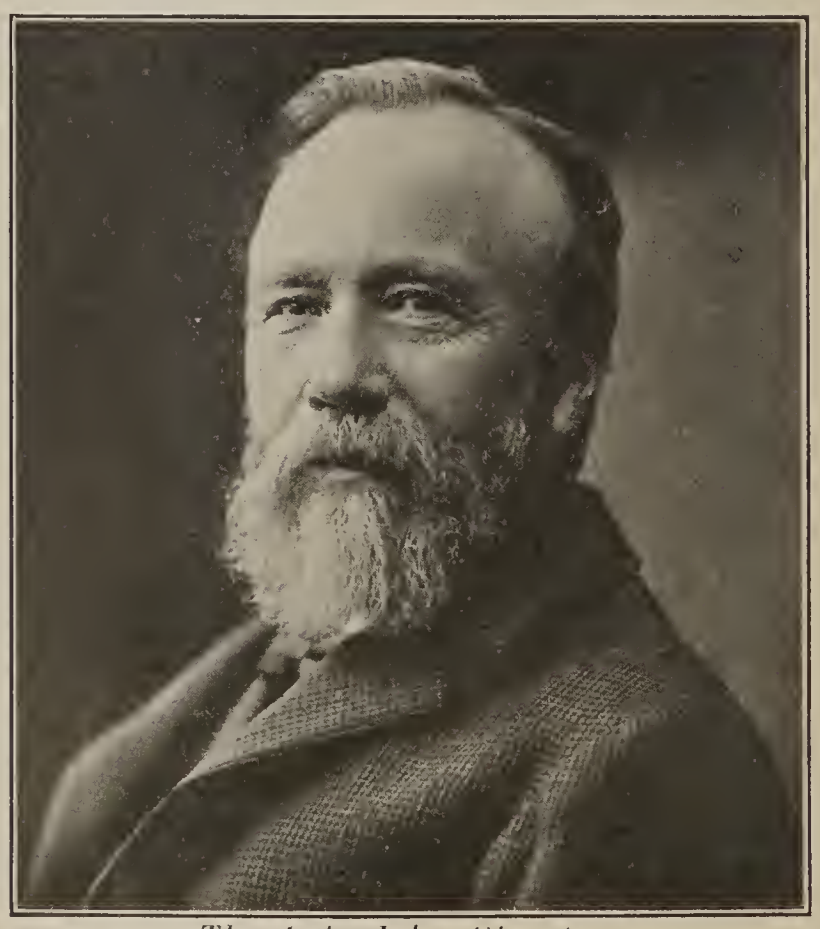
JOHN CHARLTON

John Charlton, the founder of the firm of John Charlton & Sons, Rochester, New York, died at his home on Tuesday, August 2nd, at the age of 80 years.

Born in England at Horningsham, Wiltshire, he received his education and served his apprenticeship at one of the leading private gardens in that country, coming to Canada at the age of 21.

His first position there was gardener to Sir David McPherson, Toronto, later going to Rochester, New York.

Mr. Charlton started in business for himself in a small way in 1865, which gradually grew into the present well known firm. He introduced many new varieties of



The Late John Charlton

plants, among them being *Ampelopsis Veitchii*, the Peter Henderson tree Carnation, the Pockington Grape, the Golden Prolific Gooseberry. He also helped to introduce the James Vick Strawberry and was among the first to grow hardy Grapevines for market. He was well

known as an expert grower of Fuchsias and noted for the growing of Roses, flowering shrubs and Peonies.

Mr. Charlton's passing will be mourned by many and regretted by the profession upon which he left the impress of a fine character. He leaves his wife, Sarah; two sons, John A. and Joseph M., two daughters, Mrs. W. B. Kerr and Miss Margaret Charlton, and three grandchildren.

EXPEDITING SHIPPING DOCUMENTS IN UNITED KINGDOM

[*British Board of Trade Journal, July 27.*]

The Port and Transit Executive Committee notify that, in order to obviate the delays there have been in the removal of goods from docks, wharves, and warehouses by reason of the late delivery of shipping documents sent through the post to the United Kingdom, the following arrangements have been made by the committee with the British Postal Censors' Department:

If shipping documents that are being sent through the mail to the United Kingdom are posted in envelopes marked "Shipping documents" by means of a rubber stamp and not by handwriting, the Postal Censors' Department will endeavor to deal with such envelopes with special expedition.

The only shipping documents that may be included in an envelope thus marked are: (1) Bills of lading, with or without drafts; (2) invoices; (3) specifications; (4) manifests; (5) parcels receipts; (6) certificates of origin, destination, inspection, weight, or analysis; (7) insurance policies or certificates; (8) schedules of instructions, subject to the information contained in such schedules being limited to an identification of the other documents inclosed in the envelope, and to the instructions being limited to ordinary instructions as to the delivery of such other documents as against acceptance or cash. (Note: Instructions or letters of advice as to delivery out of the ordinary course must not be inclosed in an envelope marked "Shipping documents.")

The inclosure of any letters or documents other than those above specified in an envelope marked as above is forbidden, and it is essential that this direction should be strictly obeyed. Any departure from this rule will assuredly cause greater delay. The envelope containing shipping documents should be posted at the earliest possible date.

CASTLE NURSERY COMPANY

C. D. Friebolin, Referee in Bankruptcy, has filed notice to the creditors of the Castle Nursery Company, a corporation, Cleveland, Ohio, to the effect that the Trustee has filed his final report in the above entitled proceedings; and that a final meeting of the creditors to consider the same and to transact other proper business in the closing up of said bankruptcy proceedings, and to examine the bankrupt, will be held before him, at ten o'clock in the forenoon and upon the 25th day of August, 1916, at Suite No. 610 American Trust Building, Cleveland, Ohio.

THE AMERICAN ASSOCIATION OF NURSERYMEN

Office of *Secretary*, 19 Congress Street
Boston, August 14, 1916.

To All Members of American Association of Nurserymen:

The Executive Committee feels that under the new organization plan the active members are entitled to more detailed information in regard to the financial affairs of the Association than has been furnished them in the past, and with that in mind, proposes to distribute, in the annual report or otherwise, a complete list of active, paying members, with the amount of dues paid by each member for last year.

The Executive Committee was much surprised and disappointed at the small increase in the total receipts of the Association for last year, and feels that perhaps, through inattention or unfamiliarity with the new schedule of dues, some members may not have remitted the correct amount, and that such members, if any, would be glad of this opportunity of correcting their errors before the list is published and distributed to the members.

Should any member find that he has made an error, and desires to correct it, he may remit promptly to the Secretary.

For your information, we quote Article 7 of the Constitution:

> "The annual membership fee for active members shall be $5.00, and for associate members $10.00. Additional dues shall be paid as follows: Active members doing an annual business of from $10,000 to $20,000, $5; $20,000 to $50,000, $15; $50,000 to $100,000 $25; $100,000 and over, $50. The payment of dues based upon the above schedule shall be made to the secretary prior to the date of the annual meeting."

You will understand that to the regular dues of $5.00 there should be added additional dues based on annual business.

Yours respectfully,
Curtis Nye Smith, *Secretary.*

FRANKLIN DAVIS NURSERY CO.

A Trustees' Sale of the property, nursery stock and implements of the Franklin Davis Nursery Company, Baltimore, Md., took place August the 23rd. Pending the ratification of the sale by the United States District Court, it cannot be definitely stated if the business will be reorganized, but there is every reason to hope that such will be the case, and that it will be made a going concern and in a much better position to handle orders than it has been for several years back.

The amendment to the Treasury decision regarding the importation by mail of nursery stock has been extended to include all growing or living plants, seeds and other plant products for propagation, except field, vegetable and flower seeds, and that the term "field seeds" includes only seeds of cereals, grasses and other annual farm crops, and does not include bulbs and tubers.

Method Used in Growing a Marketable One Year Cherry

Read at the Atlanta Meeting of the Southern Nurserymen's Association, August 29-30, 1916.

By Meredith P. Reed, Vincennes, Indiana.

IN discussing this subject, I do not propose to give any hard and fast rules. I expect to find a great many who will differ with me,—in fact no two nurserymen work alike. Experience and close attention to detail are the most important factors entering into the growing of cherry trees. No nurseryman can successfully grow cherry unless he gives it his undivided attention as there are too many destructive elements at work, to trust their care to men who are not as competent as yourselves.

Immediately after the arrival of our stocks from France and their subsequent inspection they are packed in a section of the storage cellar with slightly moist excelsior or moss scattered thinly through the roots, just enough to hold a small amount of moisture, care being taken to see that the packing material is not too wet. They remain there until planting time, when they are unpacked, pruned and planted. We have tried pruning the roots upon arrival, repacking in boxes and putting on cold storage. Also healing in sand and various other methods but it seems impossible to keep fungus out unless pruning is delayed until planting time.

Cherry do not adapt themselves to as wide a range of soils as do most fruits. I have seen one side of a field grow fine trees while the other side of the same field produced inferior trees, due to the difference in soil. I know of no way in determining good cherry land other than by experiment. One of the prime factors, I might say the prime factor, in growing cherry is soil fertility.

In the treatment of our land at Vincennes, we turn under a green crop of cow peas or some other good leguminous crop with a heavy coat of stable manure and if the soil is sour we give it a coat of ground limestone, two tons to the acre. This is all turned under together in the fall. This building up process is done after the removal of each crop of trees. In the spring the ground is double disced, harrowed and dragged, making a thorough seed bed before planting.

As soon as the stocks are planted intense cultivation is begun, which is kept up throughout the summer, whenever possible, making a fine dust mulch. Above all things, never allow a crust to form as the moisture evaporates and the sap ceases to flow. During the budding season, in exceedingly dry weather, we have cultivated as often as once a day for weeks, to keep the stocks growing.

Our seedlings are sprayed occasionally to control rust, using either Bordeaux Mixture or Commercial Lime Sulphur, a wet season requires more spraying than a dry one.

Our budding season usually begins about the first day of July, continuing up to the latter part of September. A great deal may be said about budding. It is a subject that has been discussed many times, but I have never yet seen an article or photograph from which anyone could bud Mahaleb and obtain a ten per cent stand, nor do I feel able to explain it myself. It is one of the things that has to be learned by experience and a great deal of practice. We have employed budders from other nurseries, who have said they had budded cherry but we found them sadly lacking according to our standards. We use a common shield bud about one and one half inches long. In cutting the bud, care is exercised to cut beneath the sap even a little way into the wood but not so deep as to make a solid piece of wood beneath the germ of the bud. In testing a bud to see if it is cut correctly you should be able to pull out a small sliver of wood which is forked around the bud germ. We use carpet warp for tying buds which we think, is much better than raffia.

About the first of March we begin "cutting off" and as soon as the frost is out of the ground the buds are barred off and the ground hoed. Too much emphasis cannot be placed upon early cultivation. It is very essential to force the sap into the bud to start early growth. The first two weeks growth of a bud largely determines the size of the tree the following fall.

All sprouts or suckers should be kept rubbed off as the bud needs all the sap flow that is possible. In this connection, I will say a word as to limbing. A great many nurserymen never limb a cherry tree, which is all right where they are growing them for two year trees, and on poor ground but on the other hand, where you are growing cherry on well prepared ground and not limb them you obtain a large calipered tree but below the standard height. We usually limb our blocks about three times. By limbing I mean the pinching out or jerking the lower limbs. The first limbing we never remove more than two or three lower limbs. This is done when the buds are about twelve inches high. The next limbing is done when the buds are from fourteen to sixteen inches, this time removing one or two limbs, the last limbing is made when the buds are from twenty to twenty-four inches high, this time removing all limbs to a height of fourteen inches. In performing this operation you should not remove all the limbs from a bud nor limb so high as to make it top heavy. If you remove the limbs any higher you get a tall tree but small caliper. I hope no one will follow the above method unless he is certain he can produce a good marketable one year tree, as this was worked out from experience and observation, where we produce on an average of sixty per cent. of eleven-sixteenths up, trees at one year old.

We spray our dormant buds with a winter strength solution of lime and sulphur. It may only be a theory, we have no proof, but we notice where we spray the dormant buds we have less aphis than we do on buds not sprayed, this is also apparent on two year trees. During the summer our spray outfits are going almost continuously. A good rule to follow, if you haven't had any experience with spraying, is to spray for each three or four inches of new growth, keeping the trees well

coated on both the upper and lower side of the leaves. We use Commereial Lime-Sulphur 1 to 49. Also Bordeaux Mixture 4 to 6 preferably the Bordeaux but the price of Copper Sulphate at present is prohibitive for spraying purposes. We use poison only when chewing insects attack the trees.

Cultivation should be stopped early enough for the trees to ripen their wood for winter. If eultivation is eontinued until almost time for frost, winter injury is to be expeeted.

In the foregoing paragraphs I have dealt altogether with the growing of one year cherry. I take for granted, anyone produeing a good tree at one year will be successful in bringing that tree to a good marketable size the second year. I might say, however, that most nurserymen do their summer pruning on two year trees too late as euts on cherry heal over very slowly and for this reason should be done early.

SOUTHERN NURSERYMEN'S ASSOCIATION

What promises to be a very interesting meeting is seheduled to take plaee August 29 and 30, 1916 at the Piedmont Hotel, Atlanta, Georgia.

The following program has been arranged:

TUESDAY, 10 A. M.

Call to order by the President.
Invoeation.
Address of Weleome.
Response.
President's Address.
Horticulture of Yesterday and Today, R. C. Berekmans, Augusta, Ga.
The Betterment and Uplift of Our Profession, W. A. Easterly, Cleveland, Tenn.
Co-operation Between the Nurserymen and the Farmers of the South, A. D. Knox, Nashville, Tenn.
The Nurserymen and Their Agents—Nursery Responsibility. Diseussion.

TUESDAY, 8 P. M., PROMPTLY

Salesmanship—Illustrated Leeture, using steropticon and pietures in eolors, O. P. Beekley, Sales Manager for J. Horaee MeFarland Co.
Publicity (Address), St. Elmo Massengale, Massengale Adv. Ageney.
Discussion on Advertising,—Publieity, time limited to 10 minutes eaeh.
Report of Edueation Committee. H. B. Chase, Chase, Ala., Chairman.
Appointment of Committees, (Suggestions of Sec'y).

WEDNESDAY, 9:30 A. M., PROMPTLY

The Relation of the Nurseryman to the Landscape Architect, Wm. H. Kessler, Birmingham, Ala.
List of Ornamentals Suited to the South as a Whole, Mr. Chase, Ala.
Ornamentals for the Extreme South, C. M. Griffing, Maeelenny, Fla.
Better Priees or Quit, W. T. Hood, Richmond, Va.
Prices. Lloyd C. Stark, Louisiana, Mo.
Getting the Money. Lien on Trees, open discussion, 5 minutes eaeh.
Freight Rates, C. T. Smith, Coneord, Ga.
Treasurer's Report.

WEDNESDAY, 8 P. M. PROMPTLY

The Improved Pecan, Past, Present, Future, B. W. Stone, Thomasville, Ga.
The Best Variety of Pecans, and Why, C. A. Simpson, Monticello, Fla.
Leading Commercial Apples, etc., John A. Young, Greensboro, N. C.
Varieties of Fruits, Too Many or Not Enough, Charles T. Smith, Concord, Ga.
Growing Marketable One-Cherry, Meredith P. Reed, Vincennes, Ind.
The Relative Value of Cultivation and the Use of Commercial Fertilizers, Cover Crops, etc., W. H. Bell, Huntsville, Ala.
Grafting Apple on Japan Pear Stocks, Illustrated, Harry Nicholson, Winchester, Tenn.
Reports of Committees.
Adjournment.

ANNUAL SUMMER OUTING OF THE CONNECTICUT NURSERYMEN'S ASSOCIATION, AUGUST 16, 1916.

We motored to Riverside Park, a suburb of Springfield, Mass., about fifty being in the party.

The baseball game was called at 11 a. m., nines being chosen and eaptained by Messrs. Campbell and Brassill, named as the "Ornamentals" and "Big Stoek" respeetively. The "Big Stoek" nine proving true to name taking the "Ornamentals" into eamp to the tune of 20 to 9 seores owing, perhaps, to their refusal to "be out" until four batters were retired.

The ball game between the Lady Nines proved very interesting and the seore will not be published—for laek of spaee.

Dinner was served by the Park Management, after which the amusements of the Park were enjoyed, shop talked, and everyone voted it one of the most enjoyable outings the Assoeiation ever held, and all look forward to the one next year.

F. L. Thomas, Secretary Connecticut Nurserymen's Association

FAGUS STYRACIFOLIA

This new beeeh, as the name indicates, has leaves very similar to the Styrax, and about half the size of the European Beeeh, of a dark, rich, green color. So far the writer has not seen any very large plants, and while it follows the general outline and habit of the beech, it is very distinet and there is ample room for it among the list of lawn speeimens, as it has the ear marks of a good thing.

STANDARDIZATION OF BOTANICAL NAMES

The Agrieultural Appropriation Bill as amended and passed by the Senate, eontains (p. 25) an item of $3,000 to eo-operate with Horticultural organizations in the standardization of botaniea1 names.

Of course the House will have to concur in this amendment.

CURTIS N. SMITH,
Attorney for the National Association of Nurserymen.

TO THE GROWERS OF ROSES

This is to inform you that members of the American Rose Society have been raising money to co-operate in employing a trained plant pathologist to investigate diseases of roses. Sufficient money has now been obtained to assure this work, which is already under way. Doctor L. M. Massey of the New York State College of Agriculture, Cornell University, Ithaca, is conducting the investigations. It is hoped that all growers of roses will now take advantage of this arrangement, not only to obtain what little information there is already at hand, but to co-operate in ways which will be suggested from time to time. Through co-operation with Doctor Massey, the growers will greatly increase the efficiency of the investigations and obtain the greatest returns from their investment.

First of all it seems desirable to make a rose disease survey such as will acquaint us with the various diseases, together with their range and the extent of injury caused by them in this country. In order that this survey may reach its maximum efficiency, it will be necessary for the growers to co-operate by sending specimens of diseased plants. Franked tags will be supplied on request. It is hoped that each grower will interest himself in this work sufficiently to collect and send diseased material together with a brief statement regarding varieties affected, nature and extent of injury, time of appearance of the disease, and other points of interest which may have been noticed. Acknowledgment of receipt of material will be made and such information as is available in the line of control will be given. Many growers will be visited, but it is hardly necessary to say that it will be impossible to visit all.

The material sent should be freshly collected and should show various stages in the development of the disease. Where roots are sent it will usually be undesirable to enclose any soil. Where convenient, specimens should be mailed so as to reach Ithaca the latter part of the week. Doctor Massey may be away from the city during the early part of the week and the material should receive immediate attention upon its arrival.

Place leaves, buds, etc., between the leaves of an old newspaper, a few between each two sheets. Then roll into a tight bundle, wrap in stout paper. Tie well, attach one of the franked tags on which you have written your name, address and mail. It will go postage free.

Yours for success in this undertaking,

H. H. Whetzel,
Head of the Department of Plant Pathology,
State College of Agriculture, Cornell University.

VIBURNUM SIEBOLDI

The Viburnums, or Snowballs, as a group, have the richest and best foliage of any of the hardy shrubs, and perhaps the most attractive of them all as far as foliage is concerned is the *Viburnum Sieboldi.* This plant really develops into a small tree 20 to 30 feet high, but in general planting it is best used as a shrub, where good striking foliage is required. The leaves when crushed have a very disagreeable odor, but apart from this it has many good qualities that cause it to be in great demand with the landscape gardeners and discriminating planters. Unfortunately it does not propagate so readily as the other Viburnums. Layers are the only sure way to increase the stock and this is a very slow process. It is, however, a safe plant to put in the stock grounds for this purpose, as the demand always exceeds the supply.

AMERICAN ASSOCIATION OF NURSERYMEN

President—John Watson, Newark, N. Y.
Vice-President—Lloyd C. Stark, Louisiana, Mo.
Treasurer—Peter Youngers, Geneva, Neb.
Attorney and Secretary for the Association—Curtis Nye Smith, Boston, Mass.
Executive Committee—President, E. S. Welch, Shenandoah, Iowa, Chairman; J. B. Pilkington, Portland, Oregon, one year; Lloyd C. Stark, Louisiana, Mo., one year; J. H. Dayton, Painesville, Ohio, two years; H. B. Chase, Chase, Ala., two years; J. R. Mayhew, Waxahackie, Texas, three years; Theo. Smith, Geneva, New York, three years; Vice-President, John Watson, Newark, N. Y., ex-officio.

CHAIRMEN OF COMMITTEES

Arrangements—Thomas B. Meehan, Dresher, Pa.
Arbitration—W. C. Reed, Vincennes, Ind.
Exhibits—Albert F. Meehan, Dresher, Pa.
Program—J. R. Mayhew, Waxahackie, Texas.
Report of Proceedings—Curtis Nye Smith, Boston, Mass.
Nomenclature—J. Horace McFarland, Harrisburg, Pa.
Tariff—Irving Rouse, Rochester, N. Y.
Press—Ralph T. Olcott, Rochester, N. Y.
Telegraphic Code—R. C. Chase, Chase, Ala.
Hail Insurance—Frank A. Weber, St. Louis, Mo.
Publicity—F. L. Atkins, Rutherford, N. J.
Distribution—M. R. Cashman, Owatonna, Minn.
Legislation—William Pitkin, Rochester, N. Y.
Transportation—Charles M. Sizemore, Louisiana, Mo.
Landscape—W. H. Wyman, North Abington, Mass.

STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irvine Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H. W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

Canadian Association of Nurserymen—President, E. D. Smith, Winona; secretary, C. C. R. Morden, Niagara Falls, Ont.

Connecticut Nurseryman's Association—President, Walter E. Campbell, New Haven, Conn.; secretary, F. L. Thomas, Manchester, Conn.

Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Litooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell. Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, E. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, E. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York. Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio· secretary, W. B. Cole, Painesville, Ohio.

Oregon—Washington Association of Nurserymen—President, C. F. Breilhaup, Richland, Wash.; secretary, C. A. Tonneson, Tacoma, Wash.

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Andorra, Philadelphia. Secretary, Henry T. Moon, Morrisville, Penna.

Southern Nurserymen's Association—President, A. I. Smith, Knoxville, Tenn.; secretary-treasurer, O. Joe Howard, Pomona, N. Carolina.

Tennessee Nurserymen's Association—President, A. I. Smith, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Tennessee State Florists' Association—President, Karl P. Baum, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Deninson, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas.

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

PAEONIES

September is a good month for handling Paeonies. Perhaps in some localities the tops will be quite green and the plants hardly ripe enough to dig, but each nurseryman will have to decide this for himself. If they are handled before they are ripe, there will be great danger of shrivelling if the weather is very dry and they are subjected to very much exposure, but the nurseryman cannot always do work just when he would like to, and if there is any transplanting to be done the sooner it is attended to and out of the way the better, as the fall shipping season will soon be here.

There is no plant that pays better for deep cultivation and thorough preparation of the ground than the Paeony. It is a deep rooting plant and a voracious feeder, and much of the trouble known as coming blind is caused by poor condition of soil and too close propagation, weakening the plants.

The Paeony is undoubtedly a coming flower, and when there is the same care and attention given to raising stock for Paeonies and in the selection of variety as there is in the roses, carnations and other lines of plants we shall have very different results from what are being generally produced now. Just because the Paeony is a plant that will often thrive with very little attention and produce fair results, is no reason why it should be neglected, in fact the reverse is true, there is no plant that responds quicker to cultivation and intelligent treatment.

DYNAMITE RAISES PROFITS

By J. M. Field, Climax, N. C.

The practice of dynamiting holes in which to set young fruit trees is not so common in the South as its merits justify. The reason for this, I believe, is to be found in the natural distrust of the average man for the claims made by the different powder companies that dynamiting holes is a decided benefit to young trees.

During the spring of 1913 I set out 200 Stayman whips.

During the previous September we bored 150 holes, 30 inches deep, 30x30 feet, and exploded one-half stick of 40 per cent. dynamite in the bottom of each hole at a cost of six cents per tree for dynamite, caps and fuse. These charges did not tear up the surface as might have been expected, but when we dug down to prepare these places for setting the young apple trees, we found the hard subsoil thoroughly pulverized to a distance of 1½ to 2 feet in every direction.

When these holes were bored, the fellows who manipulated the dirt auger decided it was a "bum" job and quit, under the pretense of going to the circus which happened along about this time, and I suppose they are now official stake drivers for the circus. Anyway, they didn't come back.

During this period of "watchful waiting," an equinoctial deluge struck us and soaked the soil and subsoil, so that the remaining one acre was not dynamited. Nevertheless, said one acre was planted along with the rest, and to this day the striking contrast is commented on by passersby who see it for the first time.

The dry season of 1913 caused 17 of the trees planted in spaded holes to die, while the adjoining three acres of trees flourished.

In the light of a former experiment when I dynamited an old roadbed for young trees, I do not hesitate to attribute the greater growth of those 150 youngsters over the 50 unfortunates, not to the time of planting or variety of trees or quality of the nursery stock, but to the manner of the soil preparation in the immediate vicinity of each young tree's root system.

At the present writing, June 9, 1916, anybody will be favorably impressed with the vigorous, sturdy growth of the 150 trees planted in dynamited holes as compared with the weak, spindling growth of the remaining 33 trees planted in spaded holes.

In order to fully appreciate the following measurements, I would suggest that you secure a small caliper rule and take measurements of any little trees you happen to find that correspond in size with these and the great difference in the two blocks of trees will be more fully appreciated than by mere reading of this article.

SPADED HOLES—AVERAGE GROWTH

Diameter at Base of Trunk	Diameter at Top of Trunk	Height of Trunk	Diameter of 1915 Growth at Base	Diameter of 1915 Growth at Top	Length of 1915 Growth
11-16 in.	7-16 in.	12 in	4-16 in.	2-16 in.	14 in.
13-16 in.	9-16 in.	14 in.	5-16 in.	2-16 in	14 in.
14-16 in.	9-16 in.	16 in.	3-16 in.	2-16 in.	18 in.
14-16 in.	10-16 in.	21 in.	5-16 in.	3-16 in.	27 in.
1 in	14-16 in.	10 in.	5-16 in.	3-16 in.	26 in.
1 6-16 in.	1 4-16 in.	13 in.	9-16 in.	4-16 in.	40 in.

DYNAMITED HOLES—AVERAGE GROWTH

Diameter at Base of Trunk	Diameter at Top of Trunk	Height of Trunk	Diameter of 1915 Growth at Base	Diameter of 1915 Growth at Top	Length of 1915 Growth
1 6-16 in.	1 in.	12 in.	8-16 in.	6-16 in.	30 in.
1 8-16 in.	1 7-16 in.	18 in.	12-16 in.	6-16 in.	36 in.
1 13-16 in.	1 9-16 in.	14 in.	12-16 in.	7-16 in.	44 in.
1 14-16 in.	1 6-16 in.	12 in.	12-16 in.	6-16 in.	42 in.
2 in.	1 8-16 in.	13 in.	1 7-16 in.	4-16 in.	37 in.
2 2-16 in.	1 12-16 in.	16 in.	14-16 in.	3-16 in.	46 in.

TRANSCENDENT CRAB APPLE TREES NOT WANTED IN WISCONSIN

In the effort to suppress "Fire Blight" in the State of Wisconsin, the University of Wisconsin has recently mailed the following circular letter to all non-resident nurserymen who are licensed to do business in Wisconsin.

Gentlemen:—

The transcendent crab is so susceptible to fire blight that it is a menace to the apple industry in our state.

In attempting to eliminate this variety from the planting list, we have taken up the matter with all local nurserymen dealing in fruit trees, and have obtained their hearty co-operation as they were agreed in their willingness to discontinue the propagation of this crab.

We are addressing a letter to the non-resident nurserymen who are licensed to do business in Wisconsin to inquire if they will indicate a similar willingness, and thus assist in this matter.

Your co-operation will be greatly appreciated.

Yours truly,

Hort. Bldg. (Signed) R. H. ROBERTS.

MINIMUM PRICE FOR APPLES

A meeting which consisted of several of the leading apple tree growers of the United States was held at the Convention Head-quarters in Milwaukee, Wisconsin.

In view of the fact that the quantity of two and three year trees in the United States is far less than one year ago, it was the unanimous opinion of those present that no printed price list of any description whatsoever should be sent out by the nurserymen and dealers with prices less than the following:

1 inch	11-16	5-8	1-2	3 to 4 ft.
9c	7c	5½c	4c	2½c

We are reporting this opinion to all the leading apple tree growers of this country with the hope that their published prices will conform to those given above.

Yours respectfully,

E. S. Welch.
Shenandoah, Iowa.
J. P. Rice.
Rice Bros. Co., Geneva, N. Y.
Orlando Harrison, ...
Harrison's Nurseries, Berlin, Md.
E. W. Chattin.
Southern Nur. Co., Winchester, Tenn.

ZIZYPHUS COMMUNIS

A tree between forty and fifty years old of the *Zizyphus communis* is growing in the vicinity of Philadelphia, apparently quite hardy and suitable for that latitude. It has a trunk 12 inches in diameter and has never been affected by the coldest winters. The general appearance suggests the Locust, has rather small foliage, very bright, attractive, light green in color. It sparingly develops thorns. It fruits annually but rather sparingly, bearing solitary berry-like fruits about the size of an early Richmond cherry.

There is not much meat on them, however, but they are of a delicious flavor. The tree would make an exceptionally pretty lawn specimen and is really worth the attention of the nurseryman as an ornamental plant. In recent years the Department of Agriculture has been investigating the economic value of this genus of trees as they are grown for their fruit in China.

WANTED

WANTED—An experienced nursery salesman, one thoroughly acquainted with the nursery business, accustomed to soliciting from private people; a good closer, able to close a sale when others can not do so. Must be actively engaged in the business at the present time.

THE ELIZABETH NURSERY CO.,
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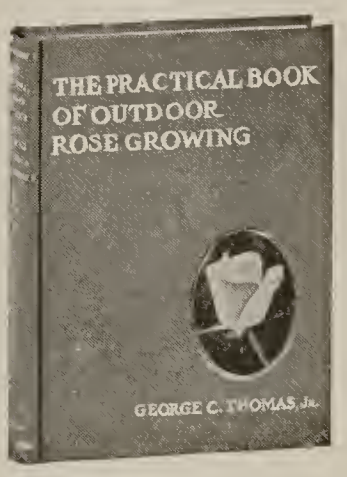
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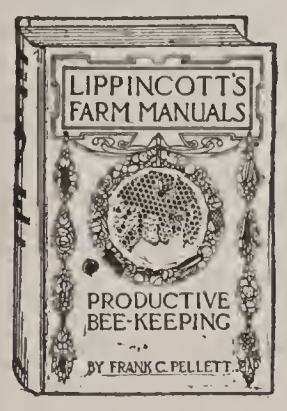
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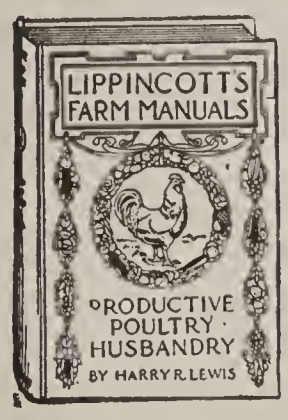
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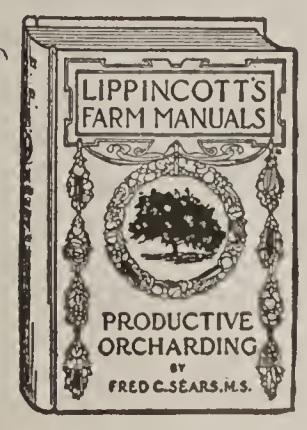
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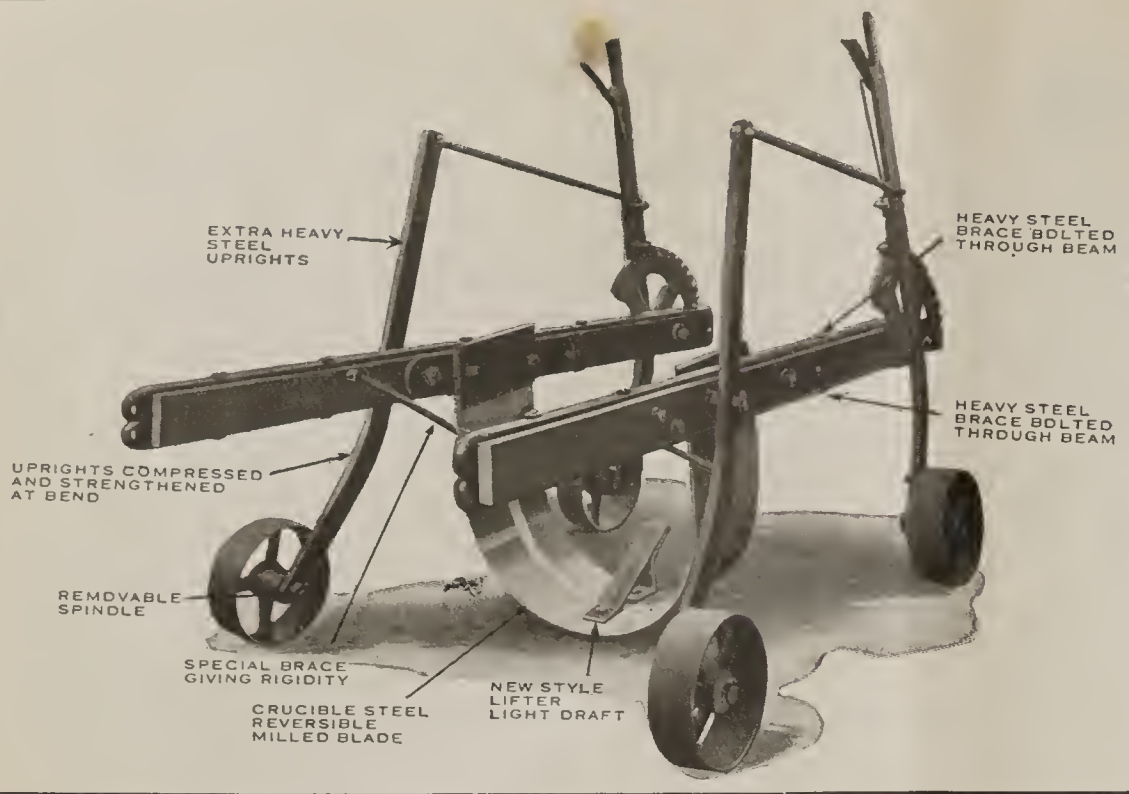
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Large assortment of above.

A Large Stock of

Apple, Pear, Cherry and Peach Grape Vines, Blackberry and Raspberry Plants

And a general line of ORNAMENTAL TREES and SHRUBS. All stock clean and thrifty, the best that can be grown.

T. B. WEST, Perry, Ohio

FRUIT TREES

ROSES MANETTI STOCKS

in heavy quantities

JOHN WATSON, Nurseryman,
NEWARK, NEW YORK,

Is our sole agent for the United States and Canada

S. SPOONER & SONS,

The Nurseries - Hounslow,

Est. 1820 England

W. T. HOOD & CO.

OLD DOMINION NURSERIES

RICHMOND - - VIRGINIA

We offer for Fall 1916

A complete line of Nursery Stock. We can make Special prices on Peach trees, Apple trees, &c. We also have to offer a nice line of Norway Maples, Pin Oaks, Oriental Planes, &c. California Privet, Amoor River Privet, Norway Spruce, Peach Seed, Tenn. and N. C. Naturals.

Send us your want list for quotations.

SCARFF'S NURSERY

Headquarters for Small Fruit Plants

1200 Acres "At it 25 Years"

Strawberries	Currants	Rhubarb
Raspberries	Gooseberries	Asparagus
Blackberries	Grape Vines	Horseradish
Dewberries	Privet	Hardwood Cuttings

100,000 transplanted Raspberry, Blackberry and Dewberry plants for retail trade. See wholesale list before placing your order.

W. N. SCARFF

New Carlisle, Ohio

W. FROMOW & SONS

Azalea mollis, Rustica & Ghent in all the leading varieties, grown from layers not grafted.

Manetti Stocks clean and well rooted for grafting or open ground.

Standard, Climbing, Weeping and Dwarf Roses in great variety Rhododendrons, the cream of the Hardy American varieties.

Andromeda floribunda, japonica, and speciosa, bushy budded plants.

Kalmia latifolia.

Green and River's Purple Beech in all sizes up to 12 feet.

Prices and full particulars on application.

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Surrey, - - - England.

Portland Wholesale Nursery Co.

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WHOLESALERS OF NURSERY STOCK AND NURSERY SUPPLIES

A very complete Line of Fruit and Ornamental Trees, Shrubs, Vines, &c.

Specialties

CLEAN COAST GROWN SEEDLINGS
OREGON CHAMPION GOOSEBERRIES
and PERFECTION CURRANTS

Write now.

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120 pages, Library Edition

A book of 120 pages, 5x8, of which 16 illustrate leading Roses in natural colors. All the necessary instructions which will be of value to the amateur are presented in clear, simple and concise form. Where, when and how to plant. Fertilizers, Insecticides, Planting, Pruning, Mulching, Winter Protection, with important lists of the best Roses for every imaginable place and purpose. Contains Calendar of Operations, in itself quite valuable. Regular price $1.00 postpaid. For quantity, prices (2 or more) mention National Nurseryman and address the author.

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President of The Conard & Jones Company

West Grove, - - Penna.

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Largest assortment in New England. Evergreens, deciduous trees, both common and rarer varieties. Sturdy, choice stock that can be depended upon. Send for catalog and special trade prices.

The Bay State Nurseries

North Abington Mass.

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This New England soil and climate produce fine sturdy shrubs. Special trade prices. By the thousands, hardy Native and Hybrid Rhododendrons—transplanted and acclimated. Send your lists, let us est.

ORNAMENTAL STOCKS

NURSERIES
420 ACRES

WE GROW

FRUIT TREE STOCKS—All Sizes.
300 varieties of Conifers, 1 to 4 years old.
1200 varieties of Ornamental Trees and Shrubs, 1 to 3 years old
1600 varieties of New and Old Ornamental Trees & Shrubs in all Sizes
250 varieties of Climbing Plants.
400 varieties of Conifers, 1 to 4 feet high.
400 varieties of Perennials.
800 varieties of New and Old Roses.

We Have No Agents. Write direct to us and ask for WHOLESALE CATALOGUES

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16 Route d'Olivet — **BARBIER & CO., Successors** — Orleans, France

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FRUIT PLATES, BINDINGS, NEW DESCRIPTIVE CATALOGUES, READY MADE PLATE BOOKS, PRINTED FORMS.

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ROCHESTER, N.Y.

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For Nurserymen and Florists are Excelled by None

Plain, Painted, Wired with Tinned or Copper Wire and

PRINTED IN ANY MANNER that may be called for

Prices as low as First-Class Work and Unequalled Promptness in Delivery will justify.

THE BENJAMIN CHASE CO.
P. O. Address, DERRY VILLAGE, N. H.
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NURSERY BANDS

Manufacturers of

STEEL BOX STRAPPING

FOR

NURSERY PURPOSES

½-inch, ¾-inch, 1-inch and wider, cut to any length from 8 inches to 72 inches, at lowest possible prices Have, sometimes, bargain lots of steel strapping, 1-inch to 1½-inch wide, random lengths. : : : :

WRITE US

COVERING YOUR WANTS IN STEEL BANDS

American Steel Band Co.,

888 Progress Street, ALLEGHENY, PA.

YOUR WAR TROUBLE IS OVER

WHEN YOU DEAL WITH US

Rhododendrons best hardy varieties
Hardy Azaleas
Boxwood all shapes
Roses in large variety
Hardy Climbers
Evergreens all sizes
Japan Maples
Shrubs, Perennials, etc.

OUR MR. WM. G. KONING WILL BE IN THE U. S. permanently and will see to a prompt forwarding of your goods from the docks, when your shipment arrives.

He will be able to do so, by a special scheme arranged between him and our office, by which he will have the necessary documents for the release of the shipment, BEFORE THE STEAMER CARRYING THE PLANTS ARRIVES.

LET US HAVE YOUR ORDERS AND BE SURE OF EFFICIENT SERVICE

Our trade list is ready. Write for a copy to:
WM. G. KONING, care P. C. Kuyper & Co.,
12 BROADWAY, NEW YORK.

KLUIS & KONING, BOSKOOP, Holland

Send all Correspondence to:

WM. G. KONING.
Care P. C. Kuyper & Co.
12 Broadway,
NEW YORK CITY.

Write him whenever he can be of your service.

Select Stock for Fall Delivery



PEACH—One Year Budded

Ask for Special Quotations on Quantities

¾ in. 9-16 in. ½ in. 7-16 in. 5-16 in.

6-7 ft. 5-6 ft. 4-4 ft. 3-4 ft. 2-3 ft.

50000	Belle of Ga.
5000	Brackett
25000	Carman
20000	Champion
5000	Crawford's Early
10000	Crawford's Late
50000	Elberta
5000	Ford
6000	Fox
7000	Francis
5000	Greensboro
15000	Hieley
10000	Iron Mountain
4000	Krummell's
4000	Mayflower
15000	Ray
10000	Salway
5000	Slappey
7000	Smock
4000	Stump

APPLE—Three-Year Budded

2 in. 1½ in. 1¼ in. 1 in. ¾ in.

5000	Baldwin
1000	Gano
5000	M. B. Twig
3000	Stark
5000	Stayman
5000	Winesap
10000	York Imperial
5000	Yellow Transparent
5000	Wm. Ely, Red
1000	P. W. Sweet

APPLE—Two-Year Budded

11-16 in. ⅝ in. ½ in. ⅜ in.

6-7 ft. 5-6 ft. 4-5 ft. 3-4 ft.

2000	Baldwin
1000	Duchess
2000	Gano
1000	Gravenstein
2000	Jonathan
1000	King
2000	M. B. Twig
2000	McIntosh
2000	Northern Spy
2000	R. I. Greening
2000	Stayman
2000	Rome Beauty

APPLE—One-Year Budded

⅝ in. ½ in. ⅜ in.

5-6 ft. 4-5 ft. 3-4 ft. 2-3 ft.

1000	Baldwin
1000	Ben Davis
10000	Delicious
4000	Duchess
4000	Fameuse
1000	Gano
3000	Gravenstein
7000	Grimes' Golden
1000	Jonathan
3000	M. B. Twig
10000	McIntosh
4000	Northern Spy
6000	R. I. Greening
3000	Rome Beauty
15000	Stayman
5000	Wealthy
15000	Wm. Ely, Red
2000	Winesap
3000	Winter Banana
15000	Yellow Transparent
2000	York Imperial

PEARS—Budded

1¼ in. 1 in. ¾ in. ⅝ in. ½ in. ¾ ft.

20000	Keiffer—2 yr.

¾ in. ⅝ in. ½ in. ¾ ft.

20000	Bartlett—2 yr. (Budded on Keiffer)
5000	Seckel—2 yr. (Budded on Keiffer)

BARBERRY, THUNBERGII

20000	6 to 12 in.
20000	12 to 18 in.
10000	18 to 24 in.
5000	2 to 3 ft.
1000	2½ to 3 ft.

MAPLE, NORWAY

5000	7 to 8 ft., 1 in.
10000	8 to 10 ft., 1¼ to 1½ in.
15000	10 to 12 ft., 1½ to 1¾ in.
15000	12 to 14 ft., 1¾ to 2 in.
10000	14 to 16 ft., 2 to 2½ in.
10000	2½ to 3 in.
5000	3 to 3½ in.
1000	3½ to 4 in.
300	4 in
25	5 in.
25	6 in.

WALNUT, BLACK

2000	4 to 5 ft.
1000	5 to 6 ft.
500	6 to 7 ft.
500	7 to 8 ft.
500	8 to 10 ft.
500	10 to 12 ft.
500	12 to 14 ft.

SPRUCE, COLORADO BLUE

50	2 to 3 ft.
300	3 to 4 ft.
50	4 to 5 ft.
75	5 to 6 ft.
25	6 to 7 ft.

SPRUCE, COLORADO GREEN

50	2 to 3 ft.
300	3 to 4 ft.
50	to 5 ft.
75	5 to 6 ft.
25	6 to 7 ft.

SPRUCE, KOSTER'S BLUE

150	18 to 24 in.
300	2 to 3 ft.
250	3 to 4 ft.
300	4 to 5 ft.
150	5 to 6 ft.
100	6 to 7 ft.
50	7 to 8 ft.

SPRUCE, NORWAY

2000	2 to 3 ft.
5000	3 to 4 ft.
5000	4 to 5 ft.
1000	5 to 6 ft.
500	6 to 7 ft.

Ask for Complete List of Our Offerings

Harrisons' Nurseries

J. G. HARRISON & SONS, PROPRIETORS

BERLIN, MARYLAND

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THE NATIONAL NURSERYMAN



OCTOBER 1916

Published Monthly at Hatboro, Penna., U. S. A., in behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General

THE MONROE NURSERY

Established 1847.

Offers a Fine Stock of

Peach, Gooseberries,
Currants, Berberis,
Spirea Van Houtte,
Other Ornamental Shrubs,
H. P. Roses, Etc.

Will be pleased to quote on your list of wants

I. E. Ilgenfritz' Sons Co.

MONROE, MICH.

MOUNT ARBOR NURSERIES

E. S. WELCH, Proprietor

136 Center St., :: Shenandoah, Iowa

Established 1875

WE GROW WITH THE GROWING TRADE:—We carry one of the most complete lines of High Grade Nursery Stock for the Wholesale Trade in the United States. Our growing season has been ideal, and our stock is unusually thrifty.

We are extensive growers of Apple Seedlings, and have one of the best blocks of apple we have ever grown. We import annually a large amount of Fruit Tree Stocks, Ornamentals, etc.

We are always pleased to quote prices, and solicit inquiries of any nature relating to the nursery trade.

If YOU were US and WE were YOU, then WE would be buying from YOU.

FELIX & DYKHUIS

WHOLESALE NURSERIES

Boskoop, - - Holland

Ask for Our Beautifully Illustrated Catalogue

TOP NOTCH BERBERRY THUNBERGII SEEDLINGS

Big Drop in Prices. Come to Us.

Also { Peaches, Apples, Shrubs, Privet, H. P. Roses

Large Assortment of Varieties at Right Prices.

C. R. BURR & CO.,

MANCHESTER, CONN.

NORWAY and SCHWEDLER MAPLES

FALL OR SPRING SHIPMENT

From Union Nurseries, Oudenbosch, Holland

Norway Maples 5-6 ft. and 6-8 ft. whips, also calipered sizes
Schwedler Maples, Red Oaks, Elms, Lindens, Thorns
Chestnuts, Planes, and all other deciduous trees

PRICES READY NOW—WRITE FOR THEM.

Boxwood, Hydrangea P. G., Roses, Azaleas, Evergreens, Rhododendrons, Koster Blue Spruce, etc., from Schaum & Van Tol, Boskoop, Holland.

French Fruit and Ornamental Stocks, from Vincent Lebreton's Nurseries, Angers, France. Catalog now ready.

Gooseberries and Manetti stocks from England.

Hardy Lilies (Auratum, Rubrum, Album, etc.,) from Japan.

Herbaceous Perennials, etc., from Holland.

Raffia, Red Star Brand and 3 other grades.

Write for prices

McHutchison & Co., The Import House **95 Chambers St., New York.**

FOR THE FALL OF 1916

A Large Stock of

APPLE, one, two and three year.

CHERRY, one and two year.

PEAR, one, two and three year.

PLUM, one and two year.

Will have 200,000 2-year CHERRY that promise to be very fine.

Also a large stock of Elm, Norway, Sugar and Soft Maple, Catalpa Bungei and a general assortment of other ornamental trees, shrubs, hedge plants, perennials, small fruits, etc.



C. M. Hobbs & Sons

Marion County

Bridgeport, - - Indiana

Greening's

Monroe, Michigan

Extra Fine Peach and Pear Trees

For Sale to the Trade

We Will Need

Some Apples
Some Grapes
Some Berries
Some Currants

The Greening Nursery Co.

Monroe, - Michigan

High Grade Northern Grown Stock.

PAINESVILLE NURSERIES



It Is Time To Ship

By the end of October, the bulk of stock for re-sale this fall should be en-route. Of course, material for winter storage may well carry into November.

We want to get in on both lines. We have the goods. We have a hundred shiny spades. We have unexcelled shipping facilities. All we want is ORDERS.

Our 1200 acres and their complete out-put, are an old story. Below, we mention merely a few things we have in



We bud a million Peaches every year.

SURPLUS

ORNAMENTAL STOCK

Catalpas
Elms
Horse Chestnuts
Lindens
Maples
Salisburia
Sycamore
Willows

FRUIT TREES

Pears—Standard and Dwarf.
In the leading 25 varieties.
Peaches—
In the best 50 varieties.
Blackberries
Gooseberries
Grape Vines—
Fine stock in all best known sorts.

A full line of **Shrubs, Roses, Perennials, etc.**



To You? The picture shows a busy scene on our grounds. Our Shipping Clerk is carding a carload for somewhere. Whose will be the next?

P. S. We nearly forgot to say, "**Prices are Right.**" Send us your Want List.

THE STORRS & HARRISON CO.

NURSERYMEN --- FLORISTS --- SEEDSMEN

ESTABLISHED 1854 **PAINESVILLE, OHIO.** 1200 ACRES 45 GREENHOUSES

Jackson & Perkins Company

Growers of the "Preferred Stock,"—the "Made in American" kind, which is right here *where* you want it, *when* you want it and *as* you want it.

Newark, - - New York

For 1916-1917 we have the largest stocks that we have ever grown, including good supplies of the usual "J. & P." specialties.

In Ornamentals:

ROSES, field-grown

TREE-FORM HYDRANGEAS

CLEMATIS
(Largest stocks in America)

TREE-FORM LILACS

AMPELOPSIS VEITCHII

DUTCHMANS PIPE
(Not hyphenated. Born and raised here)

SHRUBS
(Extra fine stock)

PERENNIAL PLANTS
(Large assortment)

SHADE TREES

In Fruits:

APPLES PEARS PLUMS

PEACHES QUINCES
(None finer grown)

CURRANTS GOOSEBERRIES

Jackson & Perkins Company

Newark, - - New York

☞ We sell *to the trade only.* We do not compete with our own customers by selling to planters.

Heikes—Huntsville—Trees



To Meet Your Needs in

Peach, Apple, Cherry, Pear, Plum, Compass-Cherry-Plum, Apricot, Pecan Seedlings, Privets, Roses (budded and own-root), **Abelia Grandiflora, Berberis Thun., Spirea V. H. and Reevesiana, Lonicera Fragrantissima and Halleana, Kudzu Vines, and Sundry Ornamentals.**

In good assortment of standard varieties. All our own growing.

Send us your orders and inquiries.

ROSES, Budded H. P's. One of our Specialties.
We grow them by the hundred thousands.

HUNTSVILLE WHOLESALE NURSERIES

HUNTSVILLE, ALA.

Hill's Evergreens

You can work up a good profitable trade in Evergreens if you have the right kind of stock. Our main specialty for over half a century has been the propagation of young Evergreen stock for the wholesale trade in immense quantities at low prices.

We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

YOU want to keep posted on Evergreens;
WE want to become better acquainted with you;
Let's get together.

The D. HILL Nursery Co., Inc.

Evergreen Specialists

LARGEST GROWERS IN AMERICA.

Box 401 - Dundee, Ill.

SPECIAL NOTICE

APPLE QUINCE PEAR CHERRY
PEACH PLUM

A Fine Block of
Own Root Roses

ORNAMENTAL TREES SHRUBS
BERRIES CLEMATIS
EVERGREENS PEONIES PHLOX
and
HERBACEOUS PERENNIALS

Write for our Special Prices

SPECIAL ATTENTION given to Dealers, complete lists and carload lots.

W. & T. SMITH COMPANY

GENEVA, N. Y.

70 Years 1000 Acres

1857 1916

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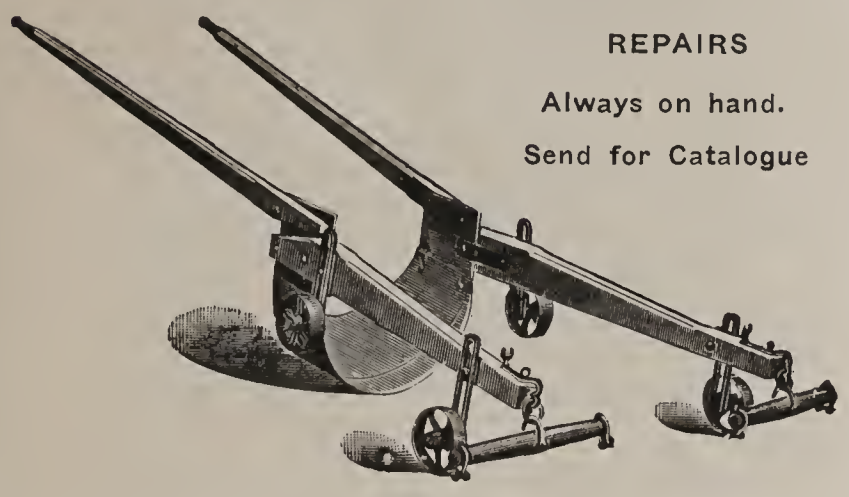
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TREE DIGGER

REPAIRS

Always on hand.

Send for Catalogue



Digger gets All the Roots at the rate of Twenty to Forty Thousand trees per day, and only needs same power as plow.

L. G. BRAGG & CO.

KALAMAZOO, MICH.

PRINCETON NURSERIES

Princeton, New Jersey

On the Pennsylvania Railroad, half-way between Philadelphia and New York; an hour and a quarter—or a dollar and a quarter—from either city.

Come and see us and let's renew old acquaintance; we want to show you what a good start we have made; plantings of three and two years ago are ready for market now; they include most good things that grow outdoors; a price-list is ready for distribution. If you would like to have one, let us know and we will put your name and address on our mailing-list.

We want your business—because we have the stock; we have the equipment to handle it properly; and the experience and ability to render efficient service.

September first.

J. H. Skinner & Co.

TOPEKA, KANSAS

FAll 1916

Apple Seedlings Pear Seedlings

Forest Tree Seedlings

Fruit Trees Small Fruits

Grapes

Rhubarb, Myatt's Linnaeus, Pure Stock

Shade Trees Flowering Shrubs

Catalpa Bungei

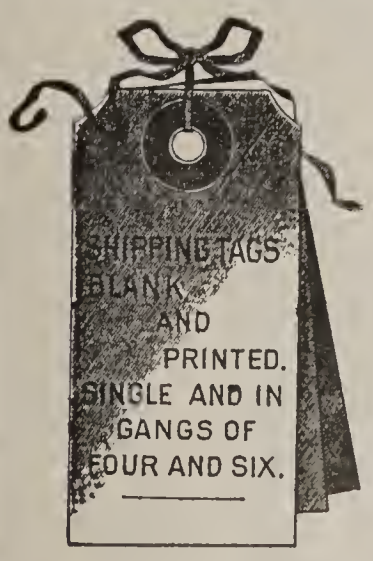
Bechtel's Double Flowering Crab

HAVE YOU SEEN

AND EXAMINED THE QUALITY AND FINISH OF OUR

Rawhide Brand of Shipping Tags and Tree Labels

PRINTED OR PLAIN, STRUNG OR WIRED?



This stock is especially adapted to the most severe usage, being thoroughly waterproof and weather-proof.

"Once used always used.',

Send for samples and prices. Our references are the largest nurserymen in the United States.

The Denney Tag Co.

West Chester, Pennsylvania

ORNAMENTAL

TREES, SHRUBS, VINES, EVERGREENS
HARDY HERBACEOUS PLANTS
225 Acres

Entirely devoted to the growing of the best quality of ornamental nursery stock.

WHOLESALE ONLY

We also grow the "unusual" things, you cannot find elsewhere.

Small Trees and Shrubs for
Planting in Nursery Rows.

We shall have our usual supply for Spring delivery. Catalogue ready January first.

RAFFIA HEADQUARTERS

Supply of our usual brands on hand at all times.

Thomas B. Meehan Co.,
WHOLESALE NURSERYMEN
Dresher, - Penna.

SPECIMEN EVERGREENS

IMMEDIATE SHIPMENT



Arbor Vitae, American, 3 to 4 feet.
" " " 4 to 5 feet.
" " " 5 to 6 feet.
" " Columbia, 2 to 3 feet.
" " Lutea, 3 feet.
" " Pyramidalis, 3 to 4 feet.
" " " 4 to 5 feet.
" " Tom Thumb, 2 feet.
Juniper Irish, 4 to 5 feet.
" Virginiana Glauca, 3 feet.
" " Sinensis, 2 to 3 feet.
" " " 4 to 5 feet.
Retinispora Filifera, 2 to 2½ feet.
" " Aurea, 15 inches broad.
" Obtusa Nana, 12 to 18 inches.
" Squarrosa, 2 to 3 feet.
Spruce, Kosters, 3 to 4 feet.
Boxwood, Pyramids, 3 to 4 feet.
" Standard
Rhododendrons, choice lot.

W. B. COLE, - - Painesville, Ohio

JOHN WATSON & CO.

Newark, New York

AGENTS FOR
F. DELAUNAY,
Angers, France

New Catalogue for Season 1916-1917 is now ready for distribution and will be sent on request. Nurserymen who like good stocks, evenly graded, properly packed, at closest prices and lowest importing expenses, should write us. We will gladly refer to last season's customers. One wrote: "Delaunay's stocks check up more good points in quality, grades and packing, than any others received." This referred to a two-car-load order. Another wrote: "Your importing expenses were the lowest." And this referred to a five-carload order. The combination of Quality, Price and Service that makes Value, is appreciated by buyers. If you want something better, for less, try us. We have shown others; we can show you.

August first, 1916.

EVERGREENS

Seedlings—Transplants

MILLIONS OF THEM

Arbor Vitae—American
Arbor Vitae—Compacta
Arbor Vitae—Douglas Golden
Arbor Vitae—Globosa
Arbor Vitae—Hoveys Golden
Arbor Vitae—Pyramidalis
Arbor Vitae—Siberian
Arbor Vitae—Tom Thumb
Arbor Vitae—Orientalis
Arbor Vitae—Orientalis Aurea
Arbor Vitae—Orientalis Pyr
Austrian Pine
Biota, 3 varieties
Black Hills Spruce
Colorado Blue Spruce
Douglas Spruce
Concolor
Englemans Spruce
Jack Pine
Norway Spruce
Norway Pine
Pinus Mugho
Pinus Flexilis
Pinus Ponderosa
Pitch Pine
Red Cedar
Retinispora, 3 varieties
Swedish Juniper
Scotch Pine
White Pine
White Spruce

Especially attractive prices on large orders

Also a Complete line of Fruit and Ornamental Stock

Sherman Nursery Co.
Charles City, Iowa.

The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

Stark Bros. Nursery & Orchards Co.
LOUISIANA, MO.



P. D. Berry, Wholesale Nurseryman, is offering for Fall 1916

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, Hydrangea, P. G., California Privets, Barberry THUNBERGII, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

Quotations furnished by letter.

P. D. BERRY,

Dayton, - Ohio

THE BEST IN NURSERY PRODUCTS

We carry a full line of fruit and ornamental trees, evergreens, shrubs, etc. Send us your list of wants.

Listed below are some real winners. If what you need is not here, write for our trade list.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Magnolia Tripetela, Japan and American Judas, English Walnuts, Japan Walnuts, California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Apples and Peaches, 10,000 Downing Gooseberries, 2 years, No. 1.

HOOPES, BRO. & THOMAS COMPANY

Established 1853 — West Chester, Pa.

Maple Avenue Nurseries

Philadelphia Office:
222-3-4-5 Stephen Girard Building — 21 South Twelfth Street

OUR STRAWBERRY PLANTS

As fine as ever grew. We have them on our own grounds (fresh new land). Plants strong, vigorous and healthy, with an abundance of fibrous roots. **Every plant guaranteed true to name.** No better anywhere, at any price. Our plants are hardy everywhere, where strawberries are grown. **BIG STOCK OF PROGRESSIVE, the best of all the fall bearing varieties.** Also full line of raspberries, blackberries, grape vines and other small fruits. We fill orders any time in November, December, January, February, March and April. Let us hear from you.

THE W. F. ALLEN CO.

100 Market St.,

SALISBURY - - - MD.

☞ **All plants tied 25 to the bunch and every bunch labelled.**

CALIFORNIA PRIVET

Over two million plants of superior quality

All sizes from one foot to four feet Very low rates in carload lots

Also Amoor Privet and Berberis Thunbergii in quantity

J. T. LOVETT, Little Silver, New Jersey

Vincennes Nurseries, W. C. REED, Prop.

VINCENNES, - - INDIANA

Leading Specialties for Fall 1916

Cherry, Two Year, extra fine, leading varieties in car lots

Cherry, one year, 11-16 up and smaller grades

Our Blocks of Cherry are perhaps the largest in the country

Std. & Dwf. Pear, Japan Plum, Compass Cherry

Peach, One Year, Car lots or less

Weeping Mulberry and Bungei Catalpa

Hardy Budded Pecans and English Walnuts

WE OFFER

Grape Vines, Currants and Gooseberries

in all varieties and grades

——also——

Grape and Currant Cuttings and Light Grade of Vines for Lining Out in Nursery Rows

WRITE FOR PRICES

F. E. SCHIFFERLI, Fredonia, N. Y.

We are now ready to quote lowest prices on

FRUIT, SHADE AND ORNAMENTAL TREES, SHRUBS, EVERGREENS, VINES and HERBACEOUS PLANTS

FOREST TREE SEEDLINGS we only have in limited supply this season, and would advise placing your orders early.

TREE SEEDS we can supply in limited quantities.

Send list of your requirements for lowest prices. Trade list ready.

The Willadean Nurseries

Sparta, Ky.

The Westminster Nursery

J. E. Stoner, Prop.

WESTMINSTER - - - MARYLAND

We offer for Fall 1916 and Spring 1917

500,000 PEACH, 40 Varieties, 1 year buds

CALIFORNIA PRIVET, 1 year and 2 year

ASPARAGUS, 1 and 2 year

SNYDER BLACKBERRY, root cuttings

DOWNING GOOSEBERRY PLANTS, 2 year

HYDRANGEAS, P. G., 2 to 3 feet and up

BARBERRY THUNBERGI, 2 and 3 year transplanted

Can supply the above stock in car load lots or less, also, have a large stock of **Rhubarb, Cumberland Raspberry Plants, Spireas, Deutzia** Assorted, nice specimen plants. Evergreens, Horse Chestnut, N. Maple, Lombardy Poplar and Planes, etc.

We will make attractive low prices for early orders

SEND LIST OF WANTS

For **FUMIGATION** With

HYDROCYANIC ACID GAS

"CYANEGG"

Sodium Cyanide in egg shape, each egg weighs as near one ounce as possible. Destroys scale insects on Fruit Trees, Nursery Stock, Plants under glass and in Greenhouses.

Manufactured in U. S. A. by

The Roessler & Hasslacher Chemical Co.

100 WILLIAM ST. - NEW YORK, N. Y.

WOOD LABELS

For Nurserymen and Florists

The kind that give satisfaction.

Facilities for the handling of your requisite, combined with the quality of our product is unsurpassed.

Samples and prices are at the command of a communication from you.

Dayton Fruit Tree Label Co.

South Canal St., Dayton, Ohio

ENGLISH NURSERY STOCK

GROWN IN LARGE QUANTITIES

RHODODENDRONS a splendid lot this season, fine bushy plants. Plenty of the hardy Catawbiense named varieties suitable for the American climate including the newer and superior kinds.
AZALEAS, ANDROMEDA, KALMIA and other American plants in great variety.
CONIFERS a large stock, of all hardy kinds.
HARDY ORNAMENTAL, EVERGREEN and DECIDUOUS TREES.
ROSES. Dwarfs and Standards in all varieties.
CLEMATIS AND CLIMBING PLANTS.
FRUIT TREES Espalier trained pyramids in quantity.
MANETTI ROSE STOCKS 1 year splendidly rooted from sandy loam, none better imported.
A general assortment of hardy outdoor stock. Glad to answer inquiries.

THIRTY YEARS SUCCESSFUL TRADING IN THE STATES

No Agents. Write direct for wholesale catalogue to

WALTER CHARLES SLOCOCK, Goldsworth Nurseries, Woking Surrey, England

Half an hours rail from London & S. W. Ry., Main Southampton Line. Cable Slocock Woking. (A. B. C. Code).

"We Raise Our Own Trees"

Evergreens

SEEDLINGS—TRANSPLANTS

Select from our specialized collection of young conifers for every place and purpose. Stock particularly suited for lining out and forest planting. Your order will have personal attention and the price will be right. Send for our catalogue and save money.

Discount to Trade

The North Eastern Forestry Co.
Box E. CHESHIRE, Conn.

V.G.'S VERY GOOD

HARDY NURSERY STOCK SUCH AS
AZALEAS, BUXUS,
CONIFERS, EVERGREENS,
PAEONIES, MAGNOLIAS,
RHODODENDRONS, ROSES, ETC.

Offered by

VAN GELDEREN & CO.

Wholesale Nurseries

Ask for Catalogue **BOSKOOP (Holland)**

FAIRFIELD NURSERIES

FRUIT AND SEED FARMS

OFFER *for Fall 1916*

GRAPE VINES—One and two years old. Varieties largely Moore's Early, Concord and Niagara.

Also Scarlet or Crimson Clover Seed and Cow Peas. Free from weed seeds, all recleaned and guaranteed first class.

Correspondence solicited. Price list upon request.

CHAS. M. PETERS

P. O. Address, Salisbury, Wicomico County, Md., R. F. D. 3

Long Distance Phone and Telegraph, Salisbury, Md.

The Framingham Nurseries

200 Acres
High Grade
Trees, Shrubs,
Evergreens,
Vines, Roses,
Etc.

DEAL TRADE MARK

Fine Stock
of
Rhododendrons
Kalmias
and
Andromedas

Send for Price List

W. B. WHITTIER & CO.

FRAMINGHAM, MASS.

We have a splendid stock of

Grape Vines

and other small fruit plants for the Nursery trade, graded up to the highest standard and sure to please you.

Give us a trial order, send in your list now for quotations

WHEELOCK & CONGDON

SUCCESSORS TO
WILLETT & WHEELOCK

North Collins, N. Y.

Foster-Cooke Co.

Nurserymen ***Fredonia, N. Y.***

Growers of

Grape Vines, Gooseberries, Currants

One and two years old. Graded up to the highest standard. Our stock never looked better. Write us for catalog. Send us your list of wants. Our prices are right, our stock A No. 1.

We grow our Stock up to QUALITY and GRADE, not down to a price. Nevertheless, our prices are always in line, you can't afford to pay less, and there's no sense in paying more. If you are pleased with what you have been getting, you will be better pleased with our stock.

NORWAY MAPLES



Frankly, Mr. Nurseryman, you will go a long way before you will find a block of Norway Maples that are in the same class as these.

Tall

Straight

Big Trunks

From tip to root they are Double A 1.

How many can you use this fall?

SWAN RIVER NURSERY, PATCHOGUE, N. Y.

FIFTIETH YEAR

T. S. HUBBARD CO.

FREDONIA, N. Y.

The longest established and best known growers of

Grape Vines

And the largest stock in the United States



CURRANTS and GOOSEBERRIES

A fine stock of leading varieties. One and two years.

BLACKBERRIES

The largest and best stock of root-cutting plants in this country. All the best varieties. Snyder in great quantity. Our blackberry plants are as well furnished with fibrous roots as our well-known grape vines.

Cherry Trees

We offer for sale our usual supply of strictly first-class one year and two year

CHERRIES

Can furnish some extra heavy trees for landscape work.

Both Mahaleb and Mazzard Roots

Send us a list of your wants

H. M. Simpson & Sons

Vincennes, - Indiana

L. R. TAYLOR & SONS

Topeka, - Kansas

FOR FALL 1916

A Fine Lot of

Apple Seedlings

FRENCH and JAPAN PEAR SEEDLINGS

Forest Tree Seedlings

-ALSO-

Apple Trees

Peach Trees

Pear Trees

Cherry Trees

Forest Trees

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK

The National Nurseryman Publishing Co., Incorporated

Vol. XXIV. HATBORO, PENNA., OCTOBER, 1916 No. 10

Hydrangeas

AMONG the most interesting, ornamental and useful shrubs which nurserymen offer, are the hardy Hydrangeas. Planted properly and given reasonable eultivation, there is little danger of loss; and few shrubs give so large and generous return of bloom, as these well-known plants.

The *Hydrangea arborescens grandiflora,* or "Snowball Hydrangea." makes the shapeliest bush, and with its graceful, riehly green foliage is distinctly ornamental at all ttmes. The all-eovering, flattened panicles which appear—first green and later a milky white,—during the fore part of July, furnish without exception the most noteworthy display of white flowers to be found among our flowering shrubs at this mid-summer season.

Late in August, and before the "Snowball" type has lost its beauty, eome the massive, pointed trusses of *Hydrangea paniculata grandiflora,* or "Hyd. P. G." in the trade. Every one is familiar with the graduation of color from the early pure white with greenish tip, through its pearl and pink stages, to the final purplish-bronze of late fall.

The standard or tree form of the latter variety has never been in such general demand as during the past three or four years. It has been customary to look to the European growers for our supply of these desirable trees, but we are just awakening to the fact that as per-



Hydrangea arborescens at Painesville Nurseries

feet specimens, as good in every way, are being developed right at home by a few of our most progressive nurserymen, in sufficient quantities to supply any normal demand. The illustration above was taken early this summer on the nursery grounds of The Storrs & Harrison Co., at Painesville, Ohio, who have always been leaders in the supplying of all types of Hydrangeas. In considering the extent of this one block which numbers many thousand choice "trees," in addition to others known to be growing in this country, we are constrained to inquire of the trade, "why import?"

The immense blocks of arborescens and bush "p. g." were also pictured at this same Painesville Nursery.

Relation Between the Nurseryman and Landscape Architect

By William Harry Kessler. Read at the Atlanta Meeting of the Southern Nurserymen's Association, August 29—30, 1916

Mr. Chairman and members of the Southern Nurserymen's Association:—

YOUR Secretary has honored me by putting me on your program to address this convention, and he has considerately left it to me to select a topic about which I might feel reasonably sure of myself, and that might prove more or less interesting to all of you. I presume that you will be interested in hearing a few words spoken with reference to the relation between the nurseryman and the landscape architect, and how their relations may be so shaped as to create the greatest good fellowship and mutual profit.

Just here I wish to impress upon you that while we are both in the business for good business reasons, we must not overlook the fact that we are particularly concerned in the improvement of the looks of things in this world, and as we have this responsibility resting on us, we should use the opportunity to carry on this work of improvement in the best possible and most efficient manner. We will really be doing a good work and adding to the attractiveness of the places in which we live, as well as increasing the pleasures of our fellowmen by so doing. Then we have at least done a laudable work whether or not we manage to get rich at it.

I have heard it mentioned several times that their exists a flavor of antagonism between some nurserymen and landscape arcitects, and I have endeavored to find out the reason for this feeling, if it really exists, and a way in which this antagonism may be overcome.

I think that I am fairly well qualified to express an opinion on the subject as I have been engaged in both occupations for a good number of years; first I was in the nursery business with the P. J. Berckman's Company for about ten years, later took up the practice of landscape architecture for them and myself, and still retain an active interest in nursery work.

During the course of this experience, I have come in contact with a great number of nurserymen and landscape architects and am quite familiar with their different methods of doing business with each other and their clients.

Now I cannot see why the relationship existing between the nurseryman and landscape architect should be other than strong and friendly and more close than it has been, redounding to the mutual benefit of all parties concerned. I believe that with a little better understanding and regulating of business transactions that such will come to pass.

The landscape architect has probably put himself in a bad light with the nurseryman by presuming that all nurserymen are generally unacquainted with the principles of landscape design, and know plants only for their individual commercial beauty and worth, also by their insistance that the nurseryman shall sell his products to their clients at dealer's wholesale prices.

On the other hand, the nurseryman has, in some instances, antagonized the landscape architect by insinuating to the latter's client that there is nothing to the work of the landscape architect that cannot be undertaken by any good horticulturist, while the landscape architect may know how to draw interesting pictures, he certainly does not know all he ought to about plants, where they will grow, etc., etc.

The nature of the two occupations, that of the landscape architect and that of the nurseryman, are so different in their chief aims that it is very difficult for a nurseryman to become a landscape designer, and vice verse. I say this advisedly, for I have had the experience of metamorphising from one to the other and know just how long and how difficult it was for me to lose the view point of the nurseryman.

The difference of viewpoint is this—the nurseryman is always striving to produce, originate and sell plants of exceptional novelty, peculiar individual excellence and perfection of form and growth, he therefore puts comparatively little worth in uncultivated, unimproved natural varieties and forms. He is always concentrating his attention on the individual plant and wishes to display it to its best advantage in its highest type of cultivation.

This aim is so thoroughly inculcated throughout his experience, as a nurseryman, that it becomes a steadfast habit with him, whenever he arranges plants in public and private grounds it so influences his work that the result is generally the opposite of that which is striven for by the landscape architect, when he is attempting to produce a naturalistic planting. The difference being that the whole planting arrangement, its scale and mass is seriously affected by the tendency to lose sight of the harmony of form, texture and color of the mass by the desire to display the particular excellence of individual specimens.

Then again he is apt to place specimens on exhibition when there is little reason for them being included in the design, for it should be understood that the successful planting arrangement is that which contains trees, shrubs and plants, that when planted either as individual specimens or in group formation, serve some definite object in the composition—that is, modify a harsh angle in the building, prevent a too rapid transition from house foundation to lawn surface, screen from view some objectionable feature, frame a good vista, create a shade accent or form a suitable background, or some other definite artistic purpose.

As some of you may not know just how a landscape architect works, and might be led to a better understanding by a short outlining of his methods, I will attempt to describe in a concise way the requirements of the work. First, after consulting with the property owner, on the ground, he makes a topographical survey and map of the property to be improved, showing by this map the location of existing features, such as trees, bounding streets,

buildings, bodies of water, etc., and the contour of ground surfaces, and such existing surrounding features as may influence the design.

Then based on his study of the property and the data shown on the map, he must locate proposed buildings, consult with the architect as to the orientation of the floor plan, fix the entrances, establish elevations for floors, so that the building will not only fit the site but will be approached in the best manner, so that its arrangement with other buildings and landscape features will be to the best advantage, economically and for the best effect.

In definitely locating the building he uses the topographic map for the purpose of determining the height of floors, the problems of approach and drainage, the establishing of scale between



A Storrs & Harrison Co. block of Tree-form Hydrangeas

building, lawn and garden areas, etc., for it should be known that unless the different features of the scheme are in scale with each other the result will not be a satisfactory one.

After a preliminary plan of general arrangement is made, sections are projected from the contour or topographic map showing the conformation of the natural ground through important axis, or elsewhere, which enable him to lay out an improved section, or profile for ground conformation on that line, a section is taken of the center line of driveways, walks and roads, and a proposed grade is laid on this profile, thus enabling him to definitely fit the grade of ground surfaces, driveways, walks, lawn and garden areas and design drainage systems to fit existing conditions. Also enabling him to calculate quantities of earth work in cubic yards and form an estimate of the cost of the work.

The general plan of arrangement, also, shows the arrangement of plantings, giving the scale and formation of the planting masses. After this plan is definitely adopted the varieties are specified by placing correspodning key numbers on plans and planting specifications, showing the quantities, varieties and description of the planting materials, and an estimate of the cost of the work is made, so that the owner or client, may have a reasonably accurate idea of the cost of all the work of grading, clearing and grubbing, road and walk building, drainage system, lawn making and planting.

In the development of parks, institutional or other public grounds, the method of procedure is similar, and the landscape architect must be familiar with the requirements of each kind of property and adequately plan for the usage to which it will be put.

In the case of a modern cemetery, he must be familiar with modern cemetery practice, the economical subdivision of such property into salable sections and lots, the proper arrangement and width of driveways providing for adequate circulation and caring for all traffic needs. He must not only be familiar with the work of the civil engineer, but he must know the history of architecture, precedent in landscape design during the different periods of architectural design.

Nowadays the landscape architect is called into consultation with the developer of real estate for subdivision and sale, and he must be fitted to design additions to towns and cities, must know the principles governing the arrangement and widths of streets, requirements for storm water and sanitary sewer systems, paving, lighting and the making of such other suitable landscape improvements as will tend to create a ready sale of the subdivided property.

So you will readily see that the work of the landscape

architect has to deal with other considerations than the mere arrangement of plantings of nursery products.

The landscape architect, in the course of his work, discovers so many different uses for trees, shrubs, plants and vines, that he creates a demand for larger quantities than would be disposed of to provide for the demands of the usual unadvised consumer. Therefore, his work is very beneficial to the nurseryman.

I have no doubt that the sales of nursery products to retail customers, as created by the landscape architect, have been the means of inducing a number of nurserymen to greatly increase the production of ornamental nursery stock within the past few years. And this line of business will very greatly increase in the years to come, as the landscape architect is helping to acquaint the general public with the different varieties of trees and shrubs, and how to use them in good arrangement for the improvement of their home grounds.

Therefore, it behooves the nurseryman to get on friendly terms with the landscape architect and assist him in his work. On the other hand the landscape architect should be in close touch with the nurseryman, and consult him as to the varieties that will be best adapted to local conditions of soil and climate, and that may be suitable for his purpose, so that he will have a known source of supply when he wishes to obtain planting material for his work.

The matter of allowing the landscape architect dealer's wholesale prices, is one that has been discussed pro and con for a number of years, but so far as I know, no definite satisfactory arrangement has been worked out.

Personally, I do not think the landscape architect should be entitled to dealer's prices, as he does not depend on a profit on nursery stock as his renumeration for his work. I do think that he should be able to buy planting material for his clients at a reduced rate under usual retail prices by reason of the large quantities of plants of one variety that he uses and on account of the usually greater ease with which his orders can be handled than those given by the unadvised purchaser.

As most nurserymen of the present time are willing to supply the wants of the landscape architect at wholesale prices, you cannot blame the landscape architect if he holds out for this concession, but I think it would be better for all concerned if the prices were increased sufficiently to allow for better grading and better packing and delivery of suitable planting material, which would tend to create the best immediate effect after planting and that would redound to the credit of the landscape architect and the nurseryman supplying the material.

ADVERTISING IN THE NATIONAL NURSERYMAN BRINGS RESULTS

One advertiser writes: "Please discontinue our advertisement. We believe that we have found a man."

Another advertiser for position as foreman had five answers to his advertisement.

FALL PLANTING OF EVERGREENS

Evergreens, like all other plants, begin to grow in the spring, make their growth during the summer, and take a rest or become dormant during the winter. The main difference is that they do not lose their leaves before going to rest, but retain them until the new ones come, dropping them unostentatiously in late spring. Some retain them the one year, but others two, three or even more according to the species.

Experience has taught us that the best time to move any kind of a plant is at a time when the top will not suffer and when it will most quickly make new roots to anchor it down and secure the needed supply of nourishment from the ground.

With evergreens this is after they have made the growth in summer, and they have hardened up nicely, so as not to wilt; and when the ground is still warm and moist to encourage the plant to make root hairs or feeders to supply those lost by transplanting.

It is not wise to say this should be done in August, September or any other given time, unless the plants, conditions of soil, locality and weather be taken into consideration.

The essentials to success are:

The plants should be moved with a ball of earth attached to the roots.

The ground should be moist from recent rains (not wet, so that it will puddle when it is tramped on), so it is wrong to plant at any time during dry, hot weather.

The plants should be of those kinds that are not naturally tender or subject to winter killing in the winter, as the planting will surely weaken them and add to the risk. The location should not be wind-swept or draughty.

If these points are covered there is no better time in all the year for moving evergreens than early fall, say from August to October. Of course, in the South planting may be carried on much later than in the North, where the winters begin earlier and are more severe.

The kinds of evergreens that should not be planted in the fall north of Washington, D. C., unless the position be very sheltered and favorable are: *Retinispora squarrosa,* Box, Lawson's Cypress, Deodar Cedar, Nordmann's Fir, English and Irish Yews, Rhododendrons, English and American Holly, Japanese Privet, Evergreen Azaleas and Andromedas. It will be noticed that these are nearly all what are known as the broad-leaved evergreens, and they are always liable to suffer from cutting, frosty winds and the winter sun.

The value of an evergreen for planting is not always evident to the purchaser.

The ideal plant is one which has been regularly transplanted so as to form a good root system, and the top properly pruned and trained to form a good foundation for future development.

Two of our British Columbia subscribers have gone to war. Journals returned, marked "gone to war."

The Betterment and Uplift of Our Profession

Read at the Atlanta Meeting of the Southern Nurserymen's Association, August 29—30, 1916,
By W. A. Easterly.

THE betterment and uplift of our profession is no doubt the chief object of every real nurseryman of today, the nurseryman who is not striving to better his condition is not worthy to be called a nurseryman, and will by and by make a failure and have to step aside for the man who puts energy integrity and advancement, the chief factors, in his business. Our business is like the community in which we live; they are just what we make them, good or bad.

There are so many ways in which we can better our profession, that I could not undertake to discuss them all in this short paper, therefore I shall only discuss a few brief points that in my opinion would better our profession.

Mr. Welsh, in his address to the American Association. at Milwaukee, said, "The work of nurserymen will not grow less as time goes on, for ours is one of expansion, not contraction, the needs of humanity will not decrease with time, and to the tillers of the soil will fall the inheritance of supplying the needs of the world. The sooner we realize it all, just so soon will we. as nurserymen become more effective." And H. W. Collingwood, has said, "It seems to me that the honest and conscientious nurseryman who is true to his business, comes closest to what I call the spiritual side of the nursery business, such men put character, hope and promise into worthless sticks of wood." This quotation in my opinion contains one of the most important essentials to the betterment and uplift of our profession.

We cannot hope to better our profession or get it on a a higher plane without putting our whole energy together with conscientious integrity into it.

I believe a Nurseryman's creed should be, in order to uplift and better his profession. the following resolutions, with a firm determination to carry them out and keep them in effect.



The way they grow Hydrangeas P. G., at Painesville, Ohio.

First. I believe in my business.

I believe in growing the best.

I believe in good stock and living prices.

I believe in cultivating the ground thoroughly and rotating my tree crops.

I believe in good strains, rigid selections and thorough training.

I believe the best a thousand miles away, may not be the best in my locality.

I believe that apart from all other considerations, honesty is the best policy.

I believe in always handling trees as if they were to be planted on my own grounds.

I believe we should not sell a tree that we would not

be willing to plant ourselves.

I believe in trying to sell the man, who does not know varieties, what is best for him rather than what he thinks he ought to have.

I believe the nurseryman occupies equally with the seedsman, the most responsible position among the husbandmen of the earth, and that they should always try to live up to their obligations.

I believe that the man whose earelessness mixes varieties should go into some other business; and that the man who deliberately changes labels is an eligible eandidate for a home in a warmer elimate.

Honesty, energy and progressiveness represent most anything pertaining to building up a good substantial business, promptness in answering inquiries, being wide awake and having the faculty of inereasing your sales, and disposing of what you produce at a price that will compensate you for the cost of production. "Plenty of energy" when this word is stamped in your make up, makes every nurseryman a winner. Energy, in a sense means reliability, honesty and a desire to live and let live and at the same time keeps one always in the front of the procession. Keep abreast of the times, study conditions and try to fulfill everything that is required in order to make your eoncern or personal interests the top notch of perfection, and you will surely uplift and better your profession.

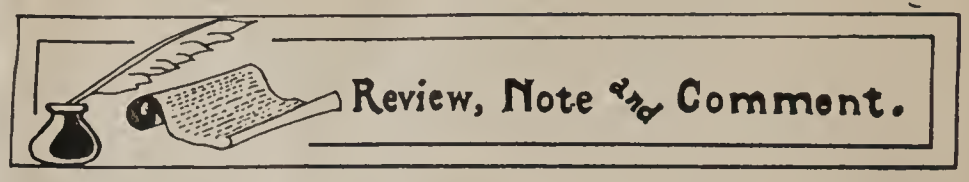
We ean better our profession by bettering our own individual homes and farms just as we ean better our own communities, by bettering ourselves as individuals.

The appearance of a plaee is the criterion of the kind of people who own it. Therefore we ean materially better our profession by setting the example of improving and beautifying our own places, which will act as a well-laid scheme for attracting the public which can be made to serve the double purpose of utility and beauty and be turned into pure gain.

There are many other ways in which we may better our professions, but I shall not further take up your time on this subject, as you are all probably more able to devise better methods of improving your business than I am able to give you.

And in eonelusion I wish to say that I know many nurserymen who come as elose in their desire to earry out the principles of the Golden Rule as any who deal with their fellowmen. In many years of business I have never heard one word of eomplaint of many nurserymen that I could mention. They settle every question promptly and eleanly, such men honor an honorable business. These are the salvation of our betterment. On the other hand there are men in the business about whom there is eonsant complaint, which are not worthy to be elassed a nurseryman, therefore I conelude that a man stamps his character and eare, such as it is, upon everything that leaves his hands.

I am one that believes that few men may claim a prouder moment than that which grows to erown the lifework of an honest nurseryman. The orchards on mountain and plains and the shrubs and trees that adorn the home grounds and parks which grew from little trees which he started and loved and endowed with true character will keep his memory forever green.



Prof. J. B. Garrett, State Entomologist of Louisiana, advises that the law requiring the payment of a $5.00 fee by out of state nurserymen for permit to sell nursery stock in Louisiana has been reseinded.

Ferdinand C. Schapper representing the Roessler & Hasslacher Chemieal Company, advises us that the formalin in solution of 1-50 which we reeommended for the destruction of fungus in greenhouses, should have the eorreet scientifie designation of solution of formaldehyde U. S. P. so as to prevent misunderstanding among farmers and nurserymen.

H. H. Brown in Birmingham, Alabama, has sold out his share of the nursery business and is going to confine himself exelusively to the cut flower business.

Mr. Herbert Chase, Delta, Colorado, started on a tour July 11th with his family. They had a glorious time motoring through the northeastern part of Maine and returned the early part of September. Mr. Chase states that they had a wonderful trip through a wonderful country."

THE AGRICULTURAL APPROPRIATION ACT FOR 1917

An appropriation of $24,948,852 has been granted to eontinue and inerease the work of the Department of Agrieulture. For carrying on the work of the Bureau of Plant industry the new act allows $2,537,120, an inerease of $398,020. An inerease of $7,500 has been ineluded for enlarging the work of fruit disease investigations. An inerease of $3,000 was granted for the purpose of eo-operating with the various states eoncerned in the eradieation of the white pine blister rust.

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE DISTRICT OF MARYLAND IN BANKRUPTCY

In the Matter of the Franklin Davis Nursery Co., Bankrupt.

Ordered by the Court, this 28th day of August, 1916, that the publie sale of real estate, chattels, &e., mentioned in the proeeedings, made and reported by Wm. F. Stone, Trustee, to James Oscar Preston, be ratified and confirmed, unless cause to the eontrary thereof be shown on or before the 13th day of September, 1916; provided a copy of this order be mailed by the Referee to the creditors of said bankrupt, on or before the 2nd day of September, 1916.

The report states the amount of sale to be $24,100.00.

John C. Rose, *District Judge.*

Willis E. Myers, *Referee.*

PRUNING EVERGREENS

Ernest Hemming

"Do not prune evergreens," is pretty safe advice for a nurseryman to give his customers, but there are times and conditions which sometimes make it advisable. Most evergreens have a very symmetrical habit of growth, and, if allowed to grow unrestricted in any way, will usually form a tree that cannot be improved upon, as far as symmetry and beauty are concerned.

Pruning is more likely to mar this beauty than enhance it. Very young plants in the nursery do require a little clipping to get them well formed and trained in the way they should go, but even this is better done with pruning knife rather than shears.

Evergreens of the Retinispora type often make three or four leaders; if left to themselves one will eventually become the main leader, but the secondary ones will make such a strong growth that it forms a cleavage in the branches of the tree that is a weakness in the trees in snows and storms. This should be corrected in the young tree by pruning.

In trees of Spruce and Fir type no pruning at all is necessary, unless it be to repair an accident, such as the breaking of the leader by a bird alighting on it while it is still very young, when they are very tender.

In such an event the tree will likely form two or more shoots to take the place of the broken one. In this event cut back all but the strongest and best-placed shoot, which will form the new leader or main stem of the tree.

Sometimes trees of this type are thin and not well furnished. If it be desired to thicken them up, it can be done by pinching back the new growth while it is young and tender. It should be done while the shoots are still so young that they can be pinched off by the thumb and finger.

The same remarks are equally applicable to the Pine trees, which are identical in growth to the Firs and Spruces.

When evergreens are planted for hedge purposes the situation is entirely altered, as the natural habit of the plant is entirely suppressed. Under such conditions it is well to thoroughly understand what might be termed their adaptability to pruning.

For convenience, they may be divided into two groups:

Group No. 1, such as Pines, Spruces, Firs and Hemlocks, cannot be depended upon to break from the old wood to any very great extent, and it naturally follows that if they are cut back very hard they will be bare stumps for a long time, if they ever recover. All the pruning or clipping that should be done consists of shortening back the new growth just about as it is completed in May or June. It can be readily seen that hedges should be formed of young plants that will grow together and be gradually formed by the annual clipping.

Group No. 2, such as Yews, Hollies, Box Arborvitaes, Portugal and English Laurels, *Osmanthus, Retinisporas,* break rather freely from the old wood, and may be cut back more severely with good prospects of their clothing themselves with new foliage. They, of course, make closer and more compact hedges. Larger plants—according to their kind—may be used, although if you want a perfect hedge without gaps and holes, well furnished right to the ground, you must start with rather small plants, say, not much higher than eight feet.

The clipping should be done about May and June, as with Group No. 1.

It is sometimes advisable, for the purpose of getting the very best color effects, to prune Retinisporas and evergreens used for this particular purpose. Practically all of them show their best color on the young wood. To get this young wood and to keep an abundance of it, it is advisable to prune after the plant has made about half its growth. This, as already noted, gives best color effect and also keeps the plant compact. This pruning, however, should be very carefully done, so that the general character of the plant is not destroyed. Pinching back, as already described in this article, is perhaps the best method.

NURSERIES IN THE WAR ZONE

Hazebrouck, France.—In the district north and west of this place, extending into Belgium, there are many hundreds of nurseries and glasshouse establishments, great numbers of which have been destroyed by the armies. Not only has glass been destroyed, but plants have suffered, the asphyxiating gas of the Germans having disastrous effects on all plant life. In many cases leaves became covered with great white patches from which the colour had completely disappeared; they did not resemble foliage discoloured by the action of gas proceeding from large factories where hydrocyanic acid or sulphuric acid is manufactured; but, after remaining white for some time, they turned brown, dried up and fell off. As a result of experiments with the gas which produced these results, it was found that it was capable of penetrating into houses of the nature of chlorine, the effects being similar to those produced by free chlorine. This asphyxiating gas proved which were closely shut and produced effects varying according to the stage of growth attained by the plants and the temperature of the house. In unheated houses, where the plants were covered with morning dew, the damage done was serious. In houses where the atmosphere was dry, the gas did not destroy the tissue of the plants, but it caused a complete cessation of growth for a week. When the fumes of gas had cleared away, growth was resumed, and continued in a normal manner. *Horticultural Advertiser.*

As we go to press we learn of the marriage of Mr. Paul C. Stark, Louisiana, Missouri and Miss Theodosia A. Barnett, St. Louis, Missouri, on Saturday, September 9th, 1916.

The National Nurseryman takes this opportunity to congratulate Mr. Stark and to wish them both happiness and prosperity.

Nurserymen will be interested to hear of the announcement of marriage of Mr. Louis A. Berckmans, Augusta, Georgia, and Miss Laura A. McGloine, New York, which is to take place in the late fall in New York.

We feel sure all who are acquainted with Mr. Berckmans will join with the National Nurseryman in wishing them much happiness.

The National Nurseryman

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Editor .....ERNEST HEMMING, Flourtown, Pa.

The leading trade journal issued for Growers and Dealers in Nursery Stocks of all kinds. It circulates throughout the United States, Canada and Europe.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900

SUBSCRIPTION RATES

One Year in Advance $1.00
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Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested by the Business Manager, Hatboro, Pa.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

Entered as second-class matter June 22, 1916, at the post office at Hatboro, Pennsylrania, under the Act of March 3, 1879.

Hatboro, Pa., October 1916

A RETAIL ASSOCIATION

There is undoubtedly a growing feeling among retail nurserymen in favor of the formation of a National Retail Nurserymen's Association, due largely to the feeling that the wholesaler encroaches on the retailer's market by selling direct to the consumer.

Whether such an association would relieve the situation it is difficult to conclude.

The argument is advanced that other trades have separate associations, but this proves nothing, as what other trade parallels the nursery business, by being manufacturer, wholesaler and retailer combined, as do many of the leading establishments in the nursery business?

The ideal, of course, is the manufacturer or grower, the jobber or wholesaler and the bona fide retailer each confining himself to his own particular branch. In the nursery business the grower and wholesaler is combined in one to a large extent and there is no good reason why he should not be, each keeping very strictly to their own particular line.

The ideal is seldom attained and the formation of an association is not certain to improve conditions to a very great extent, due to the fact so many nurserymen are growers, wholesalers and retailers.

On the face of it, it does seem as if a retail assoeiation could best look after the interests of the retail men, but after all the entire object of such an association, in so far as it has been expressed, would be to force the wholesales by boycott or otherwise to confine themselves to their own legitimate customers.

As association founded on such a basis would lose more than it would gain by separating itself from the present organization as their interests are inextricably interwoven.

Reform should come from within and when the personel of the association is considered, this does not appear to be such a monumental impossibility.

PREPAREDNESS

Everyone recognizes that there has been a complete revolution in practically all lines of trade say in the past ten years. Old methods and old ideas have been completely changed. The great war in Europe has perhaps been the cause of disturbing the main channels and thinkers and business men are studying how they are going to affect the future.

Even in the nursery business radical changes are taking place and one has to be very much alive to keep up with the times. The nurseryman perhaps is more handicapped than any other line of business in increasing production on short notice. It may be possible to raise an army in a given time, feed, clothe and arm them, or even build up battleships in half the time it has heretofore taken, but it is beyond the ability of a nation just as much as a single individual to shorten the period of production of nursery stock to any appreciable extent. The seasons have to roll by before age and caliper can be put in a tree and for this reason the nurseryman is called on to exercise more foresight than almost any other line of business.

If we look back over the past ten years, how many of us wish that instead of being panic-stricken by hard times, depression and all the other bogies that put the brakes on enterprise, we had adopted a policy of a steady increase in production and laid better plans for improving the quality and doing a higher class business. We should now be in a better position to meet the undoubted demand that will come within the next year or so. As far as the nurseryman is concerned those items that take more than one or two years to produce, especially in ornamentals, are going to be short and there is every evidence that possible restrictions will be passed against their importation, so that we cannot call upon a foreign supply. So much being said about preparedness that it is becoming almost trite. At the same time it is very vital to the nurseryman, in fact absolutely essential, that he be prepared and this means planning several years in advance and that he adhere to his program regardless of fluctuations in the stock market.

FALL PLANTING

Shipping and planting seasons are too short for the nurseryman and every means by which they may be lengthened should be taken full advantage of.

Very wisely there is an increased tendency to begin the fall planting and shipping much earlier than in the past, but the movement has not nearly attained the attention or impetus it should.

The nurseryman may do much of his own transplanting on the nursery as early as August and September when weather conditions permit, but he has not yet begun to systematically educate his customers that this is a good season for transplanting evergreens, many kinds of trees,

shrubs and herbaceous plants, local conditions being favorable.

The writer recalls a statement by the late Edward Meehan, one of the most experienced growers of ornamental plants in the country. "Boy, September is the best month of the entire year for moving deciduous trees and shrubs if properly stripped and the ground is moist. They won't lose a minute."

Stripping adds much to the cost of handling but everything is worth while that will lengthen the short planting season.

The one great objection is the dry hot spells that are liable to occur at this season, but the fall shipping and planting season should officially and actively open the first day of autumn.

Catalogues, selling campaigns and all plans should be laid accordingly.

It is perhaps not so important south of the Mason and Dixon line as they can often plant nearly all winter but where the frost is likely to put a stop to all planting operations in November an early start has everything to recommend it.

SHALL THE CONSUMER BUY HIS NURSERY STOCK AT WHOLESALE PRICES ?

Fort Atkinson, Wis., September 16, 1916.

National Nurseryman,
Flourtown, Pa.

Gentlemen:

In regard to the question of doing a retail business on a wholesale plan, M. R. Cashman, of Minnesota, entered a plea at the National Nurserymens' Convention, touching many of the things that should demand the attention of the retail and wholesale nurserymen. Articles should be published in the leading trade journals in regard to this question. Not only this, but there should be a mutual understanding between the retail nurserymen that they will not stand any longer for the idea of a nurseryman, who is a wholesaler, issuing and sending out to people promiscuously their wholesale lists, from which they may buy, and then expect the retail nurserymen to buy goods also of these wholesalers. This is not practiced in any other line of business in this country. The wholesaler should be made to feel, that unless he mends his ways, the retail nurserymen will form an association of their own, the same as other branches of business in this country do to protect themselves. It would be wise on their part to sit up and take notice so that this will not come to pass.

However, if they will cut out their unbusiness-like methods of procedure, there would be no occasion for the retail nurserymen to associate themselves in such a capacity so as to make it a hardship to them.

We are certainly with Cashman and all the rest of the retail nurserymen on this proposition.

We should surely trade with such wholesale men as will not try to break down legitimate retail business, as the retail men in all lines of trade must be in shape to serve and care for their customers.

The Coe, Converse & Edwards Co.,
F. C. Edwards, *Vice President.*

Answers to Correspondents

Question. Can you give me any information as to the proper method of treatment of forcing stock in winter storage?

I am handling a large quantity of Lilacs, Spirea, Azaleas, Skimmias, Rhododendrons, and so forth, for the winter and spring trade. Any information as to the light, air, water and heat requirements for the successful handling of such stock would be very much appreciated.

D. H.

Answer. A storage house that is frost proof is really needed to store the plants referred to. In the case of the Azaleas, Skimmias, Rhododendrons and other evergreens it is essential that it be light. These perhaps would be better wintered in a cool greenhouse, but there is great danger where they are in a greenhouse of the temperature running up and growth being encouraged, and this, of course, should be avoided if they are intended for shipment, as it is always desirable to send them out in a perfectly dormant state.

Where they are for forcing on your own nursery, it is quite a different matter, and they can be brought along very gradually and into flower to suit the requirements.

The essentials are to keep the plants dormant and away from drying conditions, so that they will not shrivel or dry out in the least. It is very important that the balls of earth on such plants as Rhododendrons do not become dry.

Where there is no storage house, all kinds of schemes are used to store such plants. One method is in cold frames. Heel the plants in very close together, thoroughly covering the roots in sand or light soil, then protecting the tops with straw or other material, so as to prevent detrimental action of the frost and sun.

Attempts to store in barns or outhouses where it is dark and that are not frost proof usually end in disaster to the stock. While it keeps fairly well while it is frozen, the leaves soon fall off in the spring, and the injury is usually irreparable.

Shipments from abroad arriving in frosty weather and in a frozen condition should be left in the cases and allowed to thaw out gradually, and if properly handled will come through without the slightest injury fom freezing.—*Editor.*

Question. Would you kindly give us the following information:

We import every year a lot of shrubs, etc., for our Spring trade and very often shipments arrive very late, sometimes when snow covers the ground, which gives us a lot of trouble heeling in for over winter, besides losing quite a few.

On our farm we have a large sand bank and we were wondering if a root-house in this bank would be suitable for wintering shrubs in. Can you give us any information on how to build one? Would you recommend a solid cement wall, how thick? Or a wooden wall, and how

should it be ventilated? Have you any plans of same or where can we secure these?

Thanking you in anticipation for any information you can give us, we remain, D. & F.

Answer. It would be inexpensive to build a small storage cellar in your sand bank and it would be a most excellent place in which to store your shrubs.

Do not construct the wall of wood. While it is probably the cheapest, yet it will not last very long, and in the long run will be most expensive. Either cement, brick walls with not less than two three-inch air spaces, or building tile or concrete blocks with not less than two air chambers, will make you the best wall. There will not be much danger of freezing if the walls are built in the sand bank. The air spaces will keep the cellar perfectly dry and the plants will not sweat, and this is very necessary in order to prevent mildew.

Of course the roof should be above ground, and may be constructed of wood, but should also have at least two six-inch air spaces in order to make it frost proof. Ventilators should be put in the roof but constructed with dampers, as a free circulation of air is necessary, yet in certain weather conditions it may be necessary to close the dampers.—EDITOR.

Obituary.

WILLIAM S. LYON.

William S. Lyon, well known in horticultural circles all over the world died at St. Paul's Hospital, Manila, P. I., July 14th, following an operation.

CHARLES M. GRIFFING

In the death of Charles M. Griffing, of the Interstate Nurseries, Macclenny, Florida, the horticultural interests of the state have sustained a severe loss. Mr. Griffing's departure came as a severe shock to his many friends, as he was in the prime of life and had been in good health until a few weeks before the end.

Coming to Florida from New York State in early boyhood, Mr. Griffing had made for himself an enviable place in the business life of the State by his industry and honesty. As a member of the State Horticultural Society, the Florida Nurserymen's Association, an active member of the American Association of Nurserymen and of other national horticultural organizations, he was well and favorably known, and in Jacksonville his connection with the Chamber of Commerce and the First Christian Church brought him into close relations with the many phases of work for the upbuilding of the city, in all of which he was deeply interested.

For years Mr. Griffing has been a consistent advocate of diversified argiculture and horticulture. Along this line he had contributed a number of articles to the farm press of the South. At the time his last illness came on, he was engaged in the preparation of additional material of this nature, under arrangements which would have given it very wide circulation. The deceased left an aged father, one sister, four brothers, a wife and several children, to whom has been extended the sympathy of a wide circle of friends and acquaintances.

EMIL A. ANDERSON

Emil A. Anderson, for many years connected with the firm of F. H. Stannard & Company, Ottawa, Kansas, died of tuberculosis, at Rocky Ford, Colorado, Wednesday, September 13th, 1916, at the age of 33 years.

Born at Ottawa, he received his education in the public schools of that city, but owing to the lack of means, he went to work at an early age, learning the nursery business as a boy, and growing in the business until at the time he was stricken with this disease, he held a very responsible position with the Stannard firm, and was well and favorably known by the nurserymen throughout the United States. He left Ottawa for New Mexico in April, hoping the change would benefit his health, remaining there a few months, and finally went to the Arkansas Valley in Colorado.

He was a young man who, with very few early opportunities, made good, and his earnest, kindly, helpful disposition made friends for him everywhere. Mr. Anderson leaves a wife and widowed mother.

Boskoop, Holland, August 25th, 1916.

The National Nurseryman,
Flourtown, Pa.

Gentlemen:—

The Protective Association of Holland Nurserymen has instructed me to request you to kindly insert the following remarks in your paper.

In the Florists' Exchange appeared an article about "Delayed imports to America."

We read therein, "that the Holland-American Line has already taken off several boats, that in all probabilities more will follow, and that when it comes time to ship, there will be very little in the way of ocean transportation facilities."

This statement is grossly exaggerated, as the Holland-America Line only laid up their best steamer, Rotterdam, and has no intention of taking off any other.

The article further states:

"It is very doubtful if the shipowners will care to bother with nursery stock, bulbs and other similar and bulky commodities, when they can get other more valuable cargoes that will bring a greater net return."

We submitted the clipping of the Florists' Exchange to the Holland-America Line and they replied:

"We are pleased to give you the assurance that the transportation of plants and bulbs will take place with all necessary care as in the past and as regular as possible. We shall be glad if you will publish this in the American trade papers."

The delay which caused a shipment of plants to Washington, D. C. to arrive in practically worthless condition is doubtless attributable to the strike which tied up S. S. Ryndam from March 28th until April 14th. This strike has been settled satisfactorily and the chances of further labor troubles are very, very slight.

C. GROOTENDORST, *Secretary.*

HARRISON'S 1916 PEACH CROP PROFITABLE

The Harrison peach crop for 1916 was a successful one from the financial standpoint. Harrisons' Nurseries at Berlin, Maryland, picked 37 cars of peaches from their home orchards.

Numerous cars of peaches were shipped from the Harrison orchards, which are located in Western Maryland and West Virginia as well as other points on the Eastern Shore of Maryland.

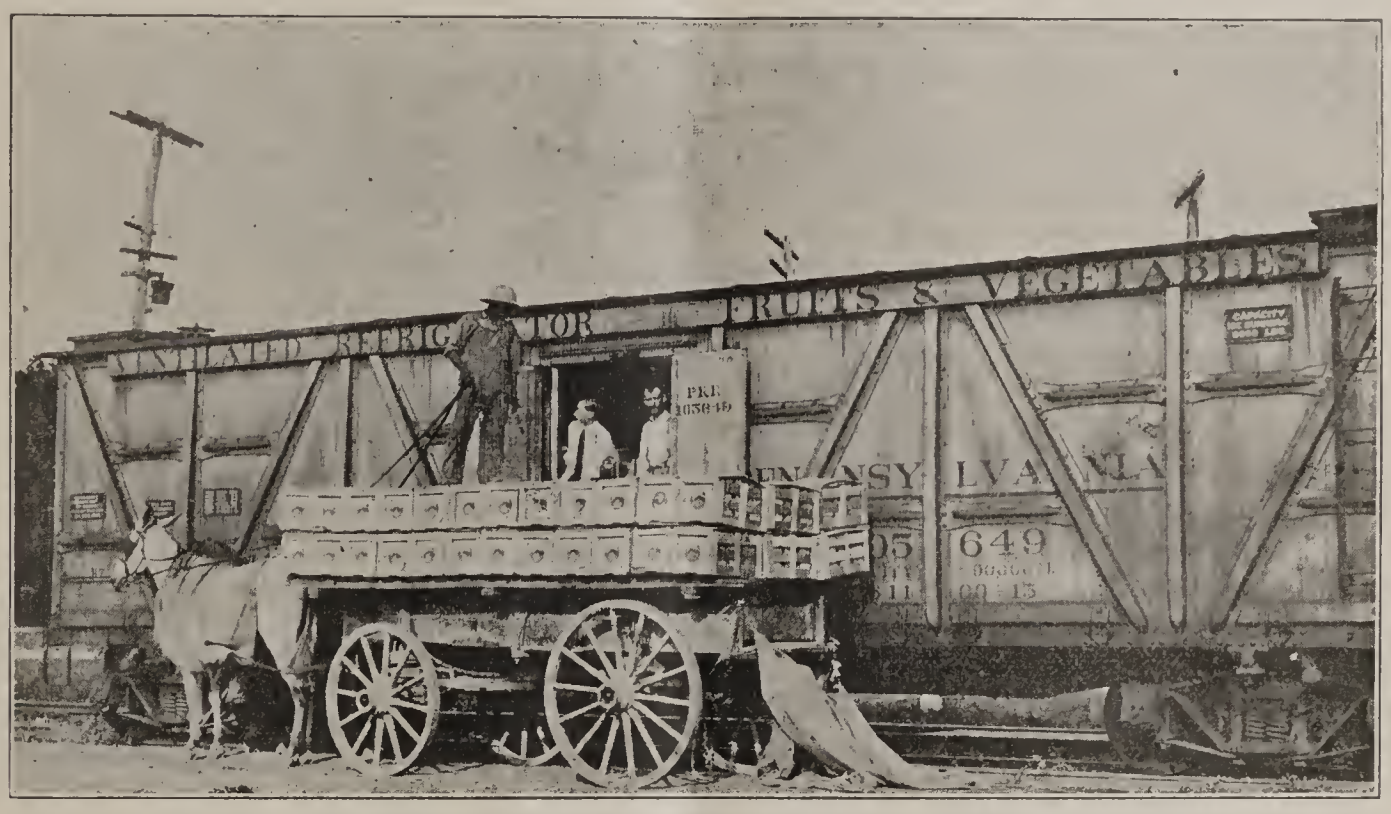
The crop yield for the different varieties varied greatly in all of the orchards. From a rough estimate the following is the percentage of the crop yield for the leading commercial varieties at Berlin, Md.

70 per cent. Greensboro,
30 per cent Carman,
50 per cent. Champion,
75 per cent. Belle of Ga.,
85 per cent. Ray,
30 per cent. Elberta,
25 per cent. Crawford Late.

The first large commercial peach orchard was planted by them at Berlin, Maryland, ten years ago.

Another orchard was planted at the same time which contained a hundred different kinds of peaches. The primary idea in planting these orchards was to have bearing trees from which to cut buds. If the buds are cut from the trees at the time of fruiting, then you are sure of the correctness of the variety. Ever since these orchards have come into bearing, millions of buds have been cut from the better fruiting trees for the nursery. The fruit from these orchards proved to be profitable. At the present time they have over a hundred thousand peach trees planted in commercial orchards about Berlin. Only a part of these trees are of bearing age. The Harrison's have interests in 26 different orchard companies in Maryland, Delaware, Virginia and West Virginia.

They specialize in peaches and early apples, although they have several thousand Stayman's Winesap, Grimes' Golden, Winesap, York Imperial, M. B. Twig, etc. bearing trees.



Loading a car of Peaches at the Harrison's Orchards

The following are the prices received for the 37 cars of peaches which were shipped from Berlin.

1 car Greensboro sold at	$1.50	to	$2.50	carrier
4 cars Carman	2.12½	to	2.25	"
2 cars Champion	2.00	to	3.00	"
2 cars Belle of Ga.	2.50	to	3.50	"
6 cars Ray	2.50	to	3.75	"
21 cars Elberta	3.50	to	4.00	"
1 car Crawford Late	2.00	to	3.00	"

The average sale for each of the thirty-seven cars of peaches was a little over a $1,000.

STUARTIA VIRGINICA

An unusual and very choice shrub that deserves more attention from nurserymen is the *Stuartia Virginica.* In general appearance it forms a bush like the Photinia or a large sized *Magnolia stellata.* The flowers also suggest the Magnolia. They are about three inches across, somewhat cupped, pure white with reddish purple stamens, which gives the flower a very distinct appearance. The flowers are produced on the extreme tips of the previous years growth.

Bailey's Encyclopedia lists it under the name of *Stuartia Malacodendron* and tender north of Washington, D. C. Given a sheltered position we rather think it would prove hardy in a much more northern latitude.

The flower is so beautiful, being unsurpassed by any of the other hardier flowering shrubs that it is well worth a little extra care.

The Improved Pecans in the South--Past, Present and Future

Read at the Atlanta Meeting of the Southern Nurserymen's Association.

By B. W. Stone, Thomasville, Ga.

IN 1871 some large nuts were planted by a few far-seeing planters expecting to benefit the future generations. The great Columbian Exposition awarded the prize for pecans to our present Columbian variety. This awakened interest in the industry.

Col. W. R. Stuart, of Ocean Springs, Miss., a gentleman of extensive knowledge and observation, began to gather and to distribute information on pecans. He broadcasted information and fancy pecan nuts for planting, thus creating great interest in the industry; hence he is correctly named the Father of the Pecan Industry. Our late P. J. Berckmans and S. W. Peck modestly advocated the planting of a few pecan trees in Georgia.

In about 1890 propagating by the annular bud assured great possibilities to the industry. In 1900 a few of our nurserymen realized the importance of supplying the growing demand for guaranteed improved pecan trees by budding and grafting. In 1905 there were not one thousand acres set to improved pecan trees in this state.

Two years ago we had compiled the acreage to budded pecan trees, and it was as follows: Georgia 14,000, Florida, 10,371, Louisiana 3,368, Mississippi 2,135, Alabama 1,865, North Carolina 557, South Carolina 558, Texas 341. This gives an idea as to the plantings in each of the main pecan states. Since then each state has made considerable more plantings.

The improved pecan belt is, practically speaking, the cotton belt. The pecan tree likes a good strong stiff soil. The Mississippi delta is well adapted to pecan growing. The buckshot lands will produce bearing trees much quicker than alluvial soils. The alluvial soils require a much longer time to bear, they require a greater distance for the trees. Any of the Mississippi delta soils will produce pecans except that which is too low and sour.

I have visited the rich soils of the Brazos river in Texas, and found the pecan trees loaded with nuts. One would naturally think that such deep rich soil would be the finest soil in the world for pecans, but their extremes of moisture supply do not best suit the growing of pecan trees. We can grow a tree in South Georgia where the moisture supply is uniform in twelve years to be as large as can be grown in the Brazos river soil in twenty years. This is not saying that the river bottoms of Texas are not good pecan localities, but the point I wish to make is that the pecan enjoys a uniform supply of moisture.

I really consider the northern limit of the present varieties of the improved pecan to be Chattanooga, Tenn., and territories of similar temperatures and conditions east and west. Every southern home should have growing on its premises from one to several of the best varieties of pecans. These trees, even in a small number, will pay the taxes and insurance.

We will not undertake to give the heavy yields which have been gathered from different trees as this audience is already acquainted with such splendid results, but will say that last season I gathered from an eight-year-old Money Maker grove of three acres 1232 pounds. These nuts sold for 24 cents, thus you can readily see that this eight-year-old grove easily pays 8 per cent. on $1000 per acre. I have recently seen pecan groves in South Carolina that will yield from 600 to 1000 pounds per acre. The price for whole crops ranges from 26 cents to 35 cents per pound.

Good land planted to pecans will grow twice as many pounds of nuts as it will of lint cotton, and the first three years of the growth of the trees will not interfere with a full cotton crop on the same land.

Two years ago I planted thirteen acres of alfalfa in a six-year-old pecan grove. The first year's cuttings yielded $50 per acre in alfalfa and $10 per acre in nuts. This the seventh year, the nuts will be an increase of last year, and the hay equally as good. I am a thorough convert to alfalfa in pecans. First ascertain if alfalfa can be successfully grown in your territory. Plant first to pecans, and then to alfalfa. Use a mowing machine for a sixteen foot strip down the tree row, and allow the cuttings to remain as a mulch. Of the remaining strips either graze or make hay out of it. The advantages of alfalfa in a pecan grove are as follows: The plowing which would mutilate the roots is finished, the nitrogen necessary for the trees is gathered by the alfalfa, the moisture is retained by the mulch, the trees are accessible for spraying all the time, there is never any danger of fire. The profits from such management are commendable.

For the last few years even the most enthusiastic and best informed pecan growers were greatly in hopes that we would not have to spray, but now we are thoroughly convinced that it is either to spray or gather no nuts. This is not discouraging to the grower who looks at it in a practical way. We will have to spray for pecan case bearer, nut case bearer and pecan scab. This will do the business no harm, for what costs little is lightly esteemed and attracts but little attention. . . .

From the best information I can procure, the commercial peach crop of the United States amounts to about 50,000 cars annually. This immense amount of fruit has to be disposed of in a short space of three months. You have to grow peaches in a hurry, gather them in a hurry, and ship them in a hurry. You grow pecans at leisure, gather them at leisure, and ship them at leisure. The pecan is a fruit which can be shipped long distances and can be kept from year to year.

The war has temporarily checked the pecan plantings, for under such conditions, people need quicker returns than are promised by pecans which could not be expected to give practical returns inside of eight years. The war condition has made such an immense demand for food stuff that people have been busy in this line. I note that the fourth German loan was made at the surprisingly low figure of 5 per cent. interest. This does not indicate that peace will be declared in the next thirty days, but when it is, the pecan industry will attract more attention than

ever before. There will not be the demand for our meats, for our wheat and beef cattle do not pay too great a dividend at present.

From information from Washington I gathered these statistics, that in the last eleven months we have imported of Almond nuts shelled 12,675,282 pounds, not shelled 2,785,127 pounds. Of Filberts not shelled 9,715,254 pounds, shelled 1,078,391 pounds. Of Walnuts not shelled 22,205,389 pounds, shelled 12,742,781 pounds. This makes a total of imported nuts 61,201,224 pounds. This point is made to show that the United States needs a few million more pounds of peeans than she is growing. There is more publieity to the southern grown peean today than ever before. There are more organized selling agencies and more large crops sold today than ever before by this time. The peean growers of the South are taking advantage of the many shoals hit by the other fruit growers and profiting from the sueeessful Georgia Fruit Growers' Exehange, the Walnut Growers' Exehange, and the Citrus Growers' Exehange, of both California and Florida, and they have their best men formulating plans so as to aid the growers in securing remunerative priees for their produets.

The improved peean industry looked good in the beginning, looks better at the present, and looks best for the future.



From the U.S.D. of A.

SEED IMPORTATION ACT AMENDED

The seed importation aet of August, 24, 1912, prohibits the importation into the United States of those seeds subject to the act when they are adulterated or eontain 3 per cent. or more of weed seeds, or when elover and alfalfa seed eontains more than approximately 90 seeds of dodder per pound.

This aet was amended on August 11, 1916, by includng the seed of rye grass and vetch in addition to those seeds enumerated in the original aet and by prohibiting the importation of seeds which eontain less than 65 per cent. of pure live seeds, except that the seed of Kentueky blue grass and the seed of Canada blue grass may be imported when it eontains 50 per eent. or more of live pure seed. The amendment fixing a minimum quality for imported seed is intended to keep out of the United States seed of low germination as well as seed eontaining large proportions of chaff, both of whieh have been imported in large quantities in recent years.

The regulations for the enforeement of the seed importation aet published at Treasury Deeisions No. 35363 on May 6, 1915, and as Serviee and Regulatory Announcements, Bureau of Plant Industry, No. 2, May, 1915, are being revised to conform with these amendments, and it is expeeted that they will be promulgated to be in effect on and after November 1, 1916.

CLINGING VINES

Nurserymen are ofen asked to recommend the best clinging vines for walls. In reality there is not very mueh choiee. The one vine that can always be depended on is the *Ampelopsis Veitchii,* popularly known as the Boston Ivy. The *Ampelopsis Virginica,* or Virginia Creeper does not adhere so closely to the wall and unless the stone work is rough or it ean drape over a eorniee, it is liable to become detached and is not nearly so good.

The English Ivy is the best evergreen vine and is to be seen covering walls of a large area in the latitude of Philadelphia and south, but it is rather difficult to get it to elimb on a wall with a southern exposure. The walls get too hot and the small tendrils will not adhere to it. In starting the English Ivy, and in faet any of the elinging vines, it is better to either eut the tops back and let them make a fresh start right from the ground up or else peg the tops along the base of the wall so that the new shoots can adhere to the wall surface from the ground up, as however earefully they are nailed or artifieially fastened to the walls, there is always some movement and it is not an easy matter to get the vines started, and even when they do start there is always a loose portion of the old stem not properly attached.

Euonymus radicans is sometimes suggested as a good elinging vine. It is to be recommended for low walls, bases and eopings, but is hardly to be reeommended where height is expeeted, as it is very unusual to see it get more than eight or ten feet high, and being somewhat subjeet to Euonymus scale, it is objeetionable on that aeeount, as when once an old plant is infested it is rather diffieult to treat.

A somewhat rare elinging vine is the *Hydrangea scandens* or Climbing Hydrangea. This, however, is very uneertain in its growth, but when it does get a position that suits it, it is remarkably free, making as much as eight and ten feet in a year. There are several plants in the vieinity of Philadelphia, eovering the sides of two and three story houses, and it is remarkably pretty, espeeially in the spring when the tender green of the foliage is unusually attraetive.

It does not flower while it is growing freely, but has somewhat the habit of the English Ivy when the growth beeomes bunehy and it eannot climb any more, it will flower very freely. The flowers are white and flat, but it is the color of the foliage and pleasing habit that is its greatest attraetion.

It ean be grown either from layers or from cuttings made from half ripened wood put in gentle bottom heat during August.

JACKSON & PERKINS CO. BUY ANOTHER FARM

An important real estate transaction was the sale of the D. P. Smith farm to the Jaekson & Perkins Company. This is one of the finest farms in this vicinity and has been owned in the Smith family since pioneer days. It is loeated about three miles southwest of Newark in the vicinity of another of the Jaekson & Perkins Company farms. It will be used in the propagaton of roses and nursery stoek by the Jackson & Perkins Company. The farm consists of 170 acres.

Roses and How to Grow Them

The rose gardener should understand that roses are subjeet to a number of fungous growths eausing serious diseases and that he must ward these off earefully if he would keep his plants in the healthful condition neeessary for satisfaetory growth and the produetion of blossoms. These fungous parasites rarely kill the plants outright, say speeialists of the U. S. Department of Agriculture, but by their presenee the vigor of plants is greatly redueed, the foliage may be rendered unsightly, branches more or less distorted or disfigured, and the quality of the blossoms lowered. In eonsidering the fungous diseases of these plants the fact must be reeognized that in eommon with similar diseases of other plants treatments are preventative rather than eurative. While thorough and repeated sprayings wth a suitable fungieide will in most eases so eheck the development of the parasite that the disease for the growing season will be in a great measure controlled, the full benefit of fungicidal applieations can only be secured by their early use in the spring, guarding in this way against the recurrence of a disease of the previous season.

Fungieides to be recommended for rose diseases are Bordeaux mixture, lime-sulphur, potassium sulphid, and ammoniacal solution of copper carbonate. The lime-sulphur has proved very valuable, espeeially in eontrolling mildew, as it does not injure the foliage of even delieate tea roses.

Powdery Mildew.—Powdery mildew is extremely eommon, few gardens being entirely free from this most destructive of all rose diseases. Wild as well as eultivated roses suffer from it, erimson ramblers being especially susceptible. The fugus frequently appears very early in the season on young buds, leaves, and young shoots causing the appearance of a delicate white mildew that becomes mealy after the development of the summer spores. If the attack is severe, the normal development of the suceulent young shoots is arrested, the leaves beeome eurled and deformed, falling prematurely, and eomplete defoliation sometimes results. Later in the season the winter spores develop. These spores are capable of persisting through the winter and setting up a new infeetion in the spring.

Rose Rusts.—Rose rust appears as conspicuous, orange-elolored swellings on the green parts of rose bushes in the spring or early summer. Later these take a deeper shade and become powdery. Small eireular spots may oceur on the leaves.

Anthracnose.—Anthraenose attacks prineipally the leaves, but also, to some extent, the branches, eausing the appearance of blotehes, which later diseharge a pinkish mass of spores. The affeeted leaves are dwarfed and fall.

Leaf-spot.—There are several leaf-spot diseases of roses. In most eases the spots have a more or less brownish center with a purplish border.

Leaf-blotch.—Leaf-blotch, which is also known as black-spot, ranks next to powdery mildew in frequeney of occurrence. Bush roses are more susceptible to this trouble than climbing roses and the attacks are most severe in wet seasons. The first symptoms of the presenee of the parasite are irregularly shaped, blackish spots without definite borders on the upper surface of mature or nearly full grown leaves. These spots may grow together so as to eover almost the entire leaf.

Practieally all these diseases require the same treatment, whieh eonsists, in general, of eareful spraying for control durng the growing season and the eutting out of diseased portions of the plant in the fall, folowed by more spraying of the shortened plant. The diseased wood removed, together with the old leaves and debris under bushes, should be burned. In ease of attacks by rusts and leaf spots, the diseased wood or leaves should be removed and burned even during the growing season.

For powdery mildew, the control sprayings should be with lime-sulphur or potassium sulphid. After cutting back in the fall, a similar spray should be made use of. The control spraying for rusts should be ammoniaeal copper carbonate. The fall spraying should be with a strong Bordeaux mixture. For leaf-spot and leaf-blight, the eontrol sprays may be either Bordeaux mixture or ammoniacal eopper carbonate, and the fall spraying should be with the former.

Another disease to whieh roses are subjeet is canker. A wholly satisfaetory method of eontrol has not been worked out for this disease. The early symptoms are the appearanee of small reddish patches on the green parts, generally of 1-year-old growth. The disease is caused by a fungus elassed as a wound parasite, that is, the spores gain entranee to the bush through certain meehanieal injuries. These may be slight ones made upon the young branehes by the thorns of the bush itself when one branch has been blown against another, or by insect punctures. Sueh infeeted areas may increase until the entire stem is surrounded and may extend for several inehes along the braneh. The only advice to be given is to eut away rigorously all diseased branehes, and it may be neeessary to eut baek entire bushes if badly infeeted. Cover the exposed surfaees made by this eutting with paint or tar. This diseased material must be burned and the dormant bushes sprayed wth strong Bordeaux mixture in both the autumn and early spring. At the first appearance of the disease, eut away and destroy all branches showing infeetion. Then spray about every 10 days, first with Bordeaux mixture and later wth ammoniacal eopper earbonate, as spraying has no disfiguring affect upon the foliage, an appearance to be avoided when blossoming time is near. It is possible that by such eareful attention the bushes may outgrow the disease.

W.

Jonkoping, Sweden, July 29, 1916.

Enelosed $2.00 as payment for your interesting and even instruetive paper. One and one-third years, July 1916-1917.

Yours truly,

M. P. Anderson.

NORTHERN PACIFIC NURSERIES.

Many years ago A. W. McDonald, believing that the western portion of the State of Washington was a fertile field for the production of nursery stock, settled at Toppenish when there were practically only Indians in that part of the state. He organized the Washington Nursery Company, now a well known organization.

Lately Mr. McDonald severed his connection with the Company and organized the Northern Pacific Nurseries, Toppenish, Washington, he being manager of tthe business.

The many friends of Mr. McDonald will join with us in wishing him the greatest measure of success.

CRATAEGUS CRUS-GALLI AS A HEDGE PLANT

Many attempts have been made to introduce the Hawthorne hedges of England into this country, but as the *Crataegus oxyacantha,* or English Hawthorn, is not altogether adapted to the American climate, the efforts have not been generally successful, although occasionally one does see a fairly good English Hawthorn hedge. Since the advent of the San Jose scale, however, attempts are hardly worth while, as the hedge would be almost sure to become infested unless it received more than ordinary attention.

The Hawthorn that suggests itself as the one most adaptable for this country, is the *Crataegus crus-galli,* or Cockspur Hawthorn. It has every quality that goes to make a successful hedge plant. The foliage is bright, and glistening; it makes very free growth and the long sharp thorns and thick growth help to form a very effective defensive hedge. It is not so subject to scale as are the other kinds of Hawthorns.

The one essential, however, for a good hedge is that only small plants be used when setting out the hedge and these to be cut well back; unless the hedge has a good foundation at the base the plants will get leggy and thin.

WOMEN HORTICULTURISTS

A letter from England states it has almost ceased to be a matter of curiosity to see a woman in breeches and leggings with a team of horses. At the Royal Show which was held at Manchester this year, the women that had been trained under Lady Darby's scheme gave a demonstration of their ability to undertake farm work. Most of them used double teams and were ploughing, harrowing, cultivating, ridging, rolling and sowing, carting and spreading manure, in fact doing all kinds of farm labor and appeared to handle themselves very well.

The Horticultural Trade Journal also speaks of their entering into the nursery work.

Messrs. Bees Ltd., who have a million stock to bud have a staff of women on this work. They are getting along famously, one of them putting on as many as eleven or twelve hundred buds per day. This is an average that compares very favorably with the ordinary achievements of experienced men and tends to dispute the frequently made assertions that lady gardeners cannot stand hard work, for as anyone who has tackled it knows budding dwarf rose stocks is a very trying task.

Mr. Curtis Nye Smith, the Counsel of the Seed and Nursery Trade Associations cordially invites the members to make his offices their headquarters while they are in or near Boston. Letters, Telegrams, etc., can be sent to Mr. Smith's offices where they will be carefully held or forwarded.

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Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio· secretary, W. B. Cole, Painesville, Ohio.

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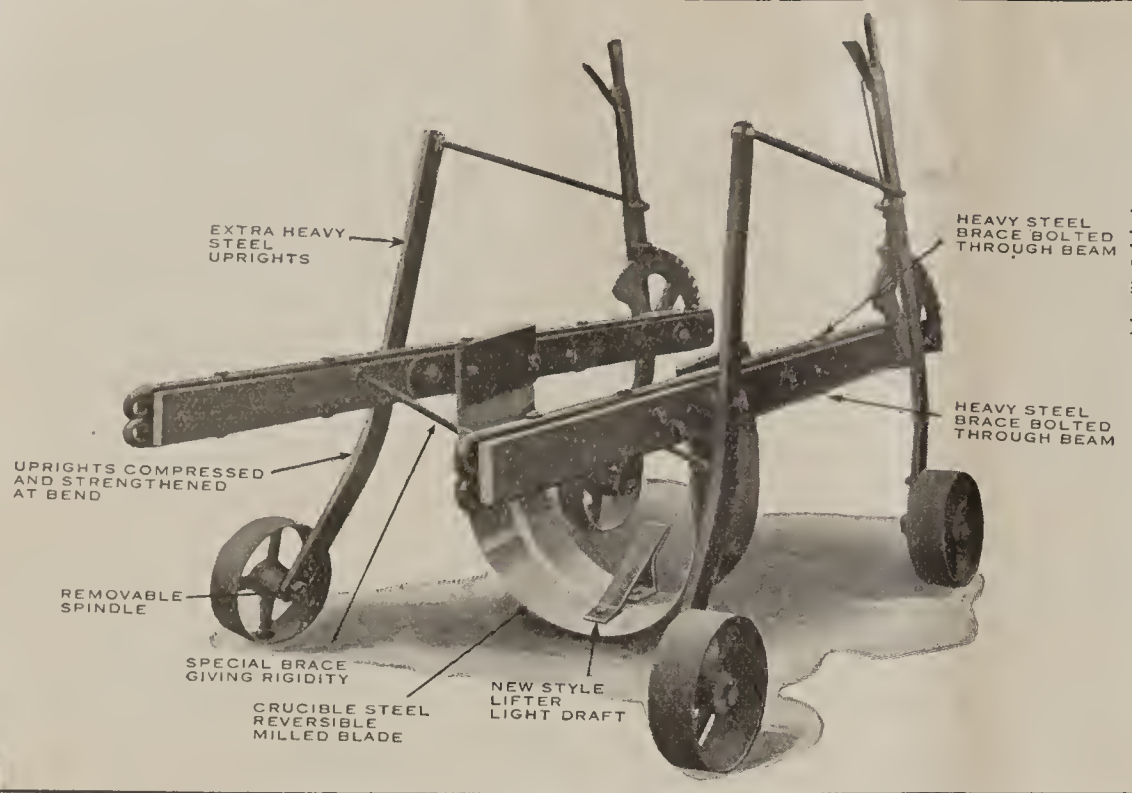
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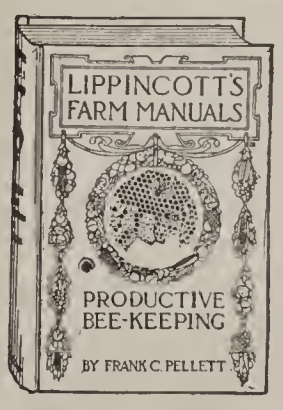
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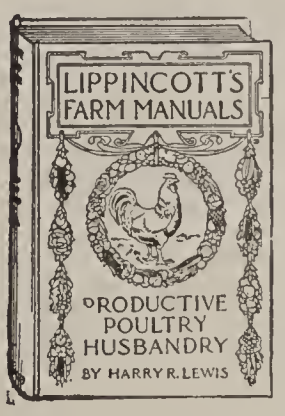
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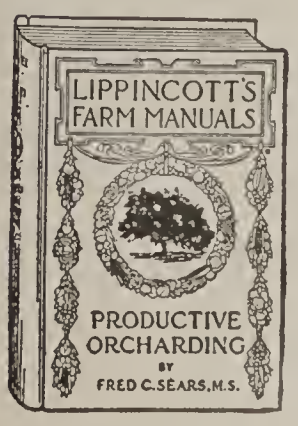
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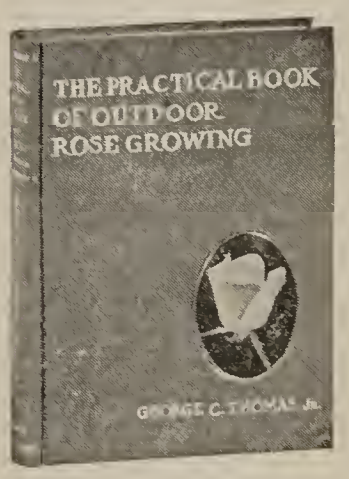
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M. B. Twig	2000	2000	2000
Stayman	1000	1000	1000
Northern Spy	200	200	200
R. I. Greening	200	200	200
Stark	200	200	200

APPLE, TWO-YEAR, BUDDED

	11-16 in. 6-7 ft.	⅝ in. 5-6 ft.	½ in. 4-5 ft.
Alexander	100	200	100
Baldwin	2000	4000	2000
Ben Davis	500	1000	500
Delicious	1000	3000	1000
Early Harvest	100	100	100
Fallawater	50	50	50
Fameuse	1000	2000	1000
Gano	200	400	200
Gravenstein	800	1500	700
Grimes' Golden	300	600	300
Jonathan	250	500	250
McIntosh	2500	5000	2500
Northern Spy	1500	3000	1500
Oldenburg	500	1000	500
Northwestern Greening	100	100	100
Paragon	2000	4000	2000
Rambo (Winter)	100	100	100
Red Astrachan	800	1000	700
R. I. Greening	2000	5000	2000
Rome Beauty	500	1000	500
Smokehouse	400	800	400
Spitzenburg	100	200	100
Stark	800	1500	700
Starr	800	1500	700
Stayman's	1200	2500	1200
Tompkin's King	150	300	150
Wagner	300	600	300
Wealthy	800	1500	700
Wm. Early Red	2000	4000	2000
Wolf River	100	200	100
Yellow Transparent	1500	3000	1500
York Imperial	200	400	200

APPLE, ONE-YEAR BUDDED

	⅝ in. 5-6 ft.	½ in. 4-5 ft.	⅜ in. ¾ ft.
Alexander	100	100	100
Baldwin	250	500	250
Ben Davis	250	500	250
Bonum	100	200	100
Delicious	2000	4000	2000
Early Harvest	100	200	100
Fallawater	100	200	100
Fameuse	600	1200	600
Gano	250	500	250
Gravenstein	600	1200	600
Grimes' Golden	2000	4000	2000
Hubbardston	50	100	50
Jonathan	400	800	400
July	100	200	50
Lowry	50	100	50
Maiden's Blush	150	300	150
McIntosh	1500	3000	1500
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Northern Spy	600	1200	600
Northwestern Greening	150	300	150
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Paragon (M. B. Twig)	1000	2000	1000
Rambo (Summer)	100	200	100
Rambo (Winter)	100	200	100
Red Astrachan	100	200	100
R. I. Greening	500	1000	500
Rome Beauty	500	1000	500
Smokehouse	250	500	250
Spitzenburg	100	200	100
Stark	150	300	150
Stayman	3000	5000	3000
Sweet Bough	100	100	100
Tompkin'n King	100	100	100
Wagner	100	200	100
Wealthy	1000	2000	1000
William's Ely Red	2500	5000	2500
Winesap	800	1500	800
Winter Banana	800	1500	800
Wolf River	100	100	100
Yel. Transparent	5000	10000	5000
York Imperial	500	1000	500

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	¾ in. 6-7 ft.	9-16 in 5-6 ft.	½ in. 4-5 ft.	7-16 in. ¾ ft.	5-16 in. 2-3 ft.
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Belle of Ga.	15000	25000	25000	25000	15000
Bilyeu's	100	300	300	300	200
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Carman	2000	5000	5000	5000	2000
Champion	2000	5000	5000	5000	2000
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Miss Lolo	100	200	300	300	100
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Mt. Rose	200	500	500	500	200
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Niagara	100	300	300	300	100
O. M. Free	300	700	700	700	300
Ray	1000	2000	2000	2000	1000
St. John	100	300	300	300	100
Salway	1000	2000	3000	3000	1000
Slappey	500	1000	2000	1000	500
Stephen's R. R.	100	200	300	300	100
Stump	400	800	800	800	400
Walker's V. Free	100	200	200	200	100
Wonderful	300	700	700	700	300

Ask for Our Complete List of Fruit and Ornamental Nursery Stock

HARRISONS' NURSERIES, Berlin, Md.

Press of Robinson Publishing Company, Hatboro, Penna.



THE NATIONAL NURSERYMAN



NOVEMBER 1916

Published Monthly at Hatboro, Penna., U. S. A., in behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General

THE MONROE NURSERY
Established 1847.
Offers a Fine Stock of

Peach, Gooseberries,
Currants, Berberis,
Spirea Van Houtte,
Other Ornamental Shrubs,
H. P. Roses, Etc.

Will be pleased to quote on your list of wants

I. E. Ilgenfritz' Sons Co.
MONROE, MICH.

MOUNT ARBOR NURSERIES

E. S. WELCH, Proprietor

136 Center St., :: Shenandoah, Iowa

Established 1875

WE GROW WITH THE GROWING TRADE:—We carry one of the most complete lines of High Grade Nursery Stock for the Wholesale Trade in the United States. Our growing season has been ideal, and our stock is unusually thrifty.

We are extensive growers of Apple Seedlings, and have one of the best blocks of apple we have ever grown. We import annually a large amount of Fruit Tree Stocks, Ornamentals, etc.

We are always pleased to quote prices, and solicit inquiries of any nature relating to the nursery trade.

YOU will undoubtedly agree that there is a great advantage in dealing with a firm who can ALWAYS supply EVERYTHING you need.

Therefore:

FELIX & DYKHUIS

WHOLESALE NURSERIES

Boskoop, - - Holland

Ask for Our Beautifully Illustrated Catalogue

TOP NOTCH BERBERRY THUNBERGII SEEDLINGS

Big Drop in Prices. Come to Us.

Also { Peaches, Apples, Shrubs, Privet, H. P. Roses

Large Assortment of Varieties at Right Prices.

C. R. BURR & CO.,
MANCHESTER, CONN.

HOLLAND NURSERY STOCK

FALL OR SPRING SHIPMENT

From Schaum & Van Tol, Boskoop, Holland

Boxwood bushes, pyramids etc.; Roses, Rhododendrons, Evergreens, Hydrangea P. G., Azaleas, Koster Blue Spruce

PRICES READY NOW—WRITE FOR THEM.

French Fruit and Ornamental Stocks

from Vincent Lebretons Nurseries, Angers, France. Catalog ready now.

Norway and Schwedler Maples, Lindens, Oaks, Planes, Elms, Thorns and all deciduous trees from Union Nurseries, Oudenbosch, Holland.

Gooseberries and Manetti stocks from England.

Hardy Lilies (Auratum, Rubrum, Album, etc.), from Japan.

Herbaceous Perennials, etc., from Royal Tottenham Nurseries, Holland.

Raffia, Red Star brand and three other grades always on hand.

Write for prices

McHutchison & Co., The Import House **95 Chambers St., New York.**

FOR THE FALL OF 1916

A Large Stock of

APPLE, one, two and three year.

CHERRY, one and two year.

PEAR, one, two and three year.

PLUM, one and two year.

Will have 200,000 2-year CHERRY that promise to be very fine.

Also a large stock of Elm, Norway, Sugar and Soft Maple, Catalpa Bungei and a general assortment of other ornamental trees, shrubs, hedge plants, perennials, small fruits, etc.

C. M. Hobbs & Sons

Marion County

Bridgeport, - - Indiana

Greening's

Monroe, Michigan

Extra Fine Peach and Pear Trees

For Sale to the Trade

We Will Need

Some Apples
Some Grapes
Some Berries
Some Currants

The Greening Nursery Co.

Monroe, - Michigan

High Grade Northern Grown Stock.

PAINESVILLE NURSERIES

Preparedness



Our country has been, and still is, vitally interested in the matter of National "preparedness." Commercially there is the same need. Nurserymen all through the states still smart under the inconvenience, worry and recriminations of their customers due to protracted delay in the ground opening-up last spring. We along the Lakes, never had our hands tied so late before, and hope never again. But the experience was a warning. To be on the safer side, if we've got to buy stock for early spring delivery, and know it now;—why don't we get it this fall and store it in our cellars, and BE READY FOR THE SPRING RUSH? Those who haven't cellars large enough for complete storage, may obtain nearly the same benefit by ordering from us now, so that we can dig this fall and store in our immense frost-proof cellars. We are told they are the largest, safest and best handled in the United States.

Again, you all know that field grown Roses and Shrubs of all kinds are over-topping all other items in the sales of the last two years. The demand is still growing. The supply is not keeping pace. By spring, lists of varieties will be all shot to pieces, and the man who waited with his ear to the ground, will wish he hadn't been so cautious. STOCK UP is the thing to do,—and DO IT NOW!

FRUIT TREES have been suffering a slump latterly. Don't be discouraged or misled, they are coming back. Are you ready for the demand? We have a very complete stock still intact, and would be pleased to fill your requirements in this line.

Foreign Bulbs have given us and all importers a lot of worry and trouble this fall, some of them not having arrived even yet. Although not to blame, we wish to apologize to our bulb customers for delay and shortages.

Prepare NOW for Spring

Fruit Trees

Small Fruits

Ornamentals

Special Supply of Tree Form Hydrangeas

Etc.

THE STORRS & HARRISON CO.

NURSERYMEN --- FLORISTS --- SEEDSMEN

ESTABLISHED 1854

PAINESVILLE, OHIO.

1200 ACRES
45 GREENHOUSES

Jackson & Perkins Company

Growers of the "Preferred Stock,"—the "Made in America" kind, which is right here *where* you want it, *when* you want it and *as* you want it.

Newark, - - New York

For 1916-1917 we have the largest stocks that we have ever grown, including good supplies of the usual "J. & P." specialties.

In Ornamentals:

ROSES, field-grown
TREE-FORM HYDRANGEAS
CLEMATIS (Largest stocks in America)
TREE-FORM LILACS
AMPELOPSIS VEITCHII
DUTCHMANS PIPE (Not hyphenated. Born and raised here)
SHRUBS (Extra fine stock)
PERENNIAL PLANTS (Large assortment)
SHADE TREES

In Fruits:

APPLES PEARS PLUMS
PEACHES QUINCES (None finer grown)
CURRANTS GOOSEBERRIES

Jackson & Perkins Company

Newark, - - New York

☞ We sell *to the trade only*. We do not compete with our own customers by selling to planters.

Heikes—Huntsville—Trees



To Meet Your Needs in

Peach, Apple, Cherry, Pear, Plum, Compass-Cherry-Plum, Apricot, Pecan Seedlings, Privets, Roses (budded and own-root), **Abelia Grandiflora, Berberis Thun., Spirea V. H. and Reevesiana, Lonicera Fragrantissima and Halleana, Kudzu Vines, and Sundry Ornamentals.**

In good assortment of standard varieties. All our own growing.
Send us your orders and inquiries.

ROSES, Budded H. P's. One of our Specialties.
We grow them by the hundred thousands.

HUNTSVILLE WHOLESALE NURSERIES
HUNTSVILLE, ALA.

Hill's Evergreens

You can work up a good profitable trade in Evergreens if you have the right kind of stock. Our main specialty for over half a century has been the propagation of young Evergreen stock for the wholesale trade in immense quantities at low prices.

We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S. A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

YOU want to keep posted on Evergreens;

WE want to become better acquainted with you;

Let's get together.

The D. HILL Nursery Co., Inc.

Evergreen Specialists
LARGEST GROWERS IN AMERICA.
Box 401 - Dundee, Ill.

SPECIAL NOTICE

APPLE QUINCE PEAR CHERRY
PEACH PLUM

A Fine Block of
Own Root Roses

ORNAMENTAL TREES SHRUBS
BERRIES CLEMATIS
EVERGREENS PEONIES PHLOX
and
HERBACEOUS PERENNIALS

Write for our Special Prices

SPECIAL ATTENTION given to Dealers, complete lists and carload lots.

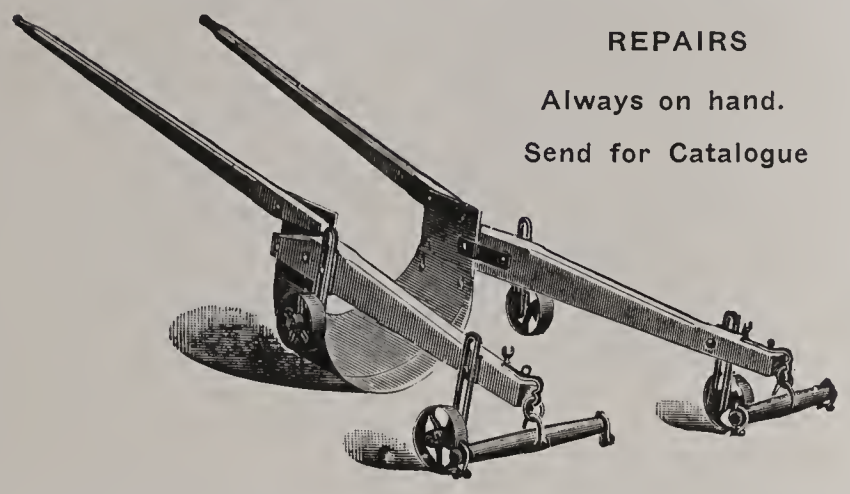
W. & T. SMITH COMPANY
GENEVA, N. Y.
70 Years 1000 Acres

1857 1916

BRAGG'S

COMMON SENSE

TREE DIGGER



REPAIRS

Always on hand.

Send for Catalogue

Digger gets All the Roots at the rate of Twenty to Forty Thousand trees per day, and only needs same power as plow.

L. G. BRAGG & CO.

KALAMAZOO, MICH.

Oriental Planes

The best shade tree for street planting; tall, wide-spreading, easily transplanted, free from insect pests and flourishes in spite of dust and smoke. We have some especially good blocks of straight trees with well-branched heads. Also Maples, Poplars and other shades together with a complete assortment of Shrubs and Evergreens.

We do not compete with our customers through Agents, Catalogues, Auctions or Department Stores.

We solicit the support of those in the Trade who approve of that policy.

Princeton Nurseries

Nov. 1. Princeton, New Jersey

J. H. Skinner & Co.

TOPEKA, KANSAS

FAll 1916

Apple Seedlings Pear Seedlings

Forest Tree Seedlings

Fruit Trees Small Fruits

Grapes

Rhubarb, Myatt's Linnaeus, Pure Stock

Shade Trees Flowering Shrubs

Catalpa Bungei

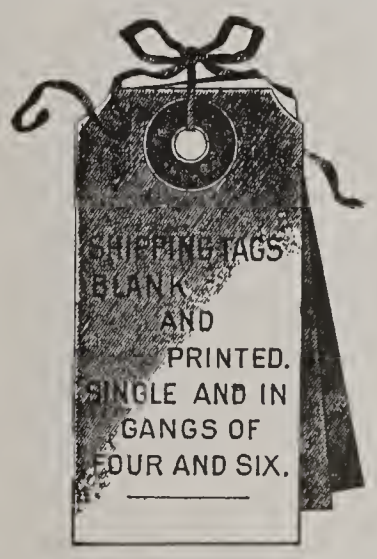
Bechtel's Double Flowering Crab

HAVE YOU SEEN

AND EXAMINED THE QUALITY AND FINISH OF OUR

Rawhide Brand of Shipping Tags and Tree Labels

PRINTED OR PLAIN, STRUNG OR WIRED?



This stock is especially adapted to the most severe usage, being thoroughly waterproof and weatherproof.

"Once used always used."

Send for samples and prices. Our references are the largest nurserymen in the United States.

The Denney Tag Co.

West Chester, Pennsylvania

ORNAMENTAL

TREES, SHRUBS, VINES, EVERGREENS
HARDY HERBACEOUS PLANTS
225 Acres

Entirely devoted to the growing of the best quality of ornamental nursery stock.

WHOLESALE ONLY

We also grow the "unusual" things, you cannot find elsewhere.

Small Trees and Shrubs for Planting in Nursery Rows.

We shall have our usual supply for Spring delivery. Catalogue ready January first.

RAFFIA HEADQUARTERS

Supply of our usual brands on hand at all times.

Thomas B. Meehan Co.,
WHOLESALE NURSERYMEN
Dresher, - Penna.

SPECIMEN EVERGREENS

IMMEDIATE SHIPMENT



Arbor Vitae, American, 3 to 4 feet.
" " " 4 to 5 feet.
" " " 5 to 6 feet.
" " Columbia, 2 to 3 feet.
" " Lutea, 3 feet.
" " Pyramidalis, 3 to 4 feet.
" " " 4 to 5 feet.
" " Tom Thumb, 2 feet.
Juniper Irish, 4 to 5 feet.
" Virginiana Glauca, 3 feet.
" " Sinensis, 2 to 3 feet.
" " " 4 to 5 feet.
Retinispora Filifera, 2 to 2½ feet.
" " Aurea, 15 inches broad.
" Obtusa Nana, 12 to 18 inches.
" Squarrosa, 2 to 3 feet.
Spruce, Kosters, 3 to 4 feet.
Boxwood, Pyramids, 3 to 4 feet.
" Standard
Rhododendrons, choice lot.

W. B. COLE, - - Painesville, Ohio

JOHN WATSON & CO.

Newark, New York

AGENTS FOR
F. DELAUNAY,
Angers, France

New Catalogue for Season 1916-1917 is now ready for distribution and will be sent on request. Nurserymen who like good stocks, evenly graded, properly packed, at closest prices and lowest importing expenses, should write us. We will gladly refer to last season's customers. One wrote: "Delaunay's stocks check up more good points in quality, grades and packing, than any others received." This referred to a two-car-load order. Another wrote: "Your importing expenses were the lowest." And this referred to a five-carload order. The combination of Quality, Price and Service that makes Value, is appreciated by buyers. If you want something better, for less, try us. We have shown others; we can show you.

August first, 1916.

EVERGREENS

Seedlings—Transplants

MILLIONS OF THEM

Arbor Vitae—American
Arbor Vitae—Compacta
Arbor Vitae—Douglas Golden
Arbor Vitae—Globosa
Arbor Vitae—Hoveys Golden
Arbor Vitae—Pyramidalis
Arbor Vitae—Siberian
Arbor Vitae—Tom Thumb
Arbor Vitae—Orientalis
Arbor Vitae—Orientalis Aurea
Arbor Vitae—Orientalis Pyr
Austrian Pine
Biota, 3 varieties
Black Hills Spruce
Colorado Blue Spruce
Douglas Spruce
Concolor
Englemans Spruce
Jack Pine
Norway Spruce
Norway Pine
Pinus Mugho
Pinus Flexilis
Pinus Ponderosa
Pitch Pine
Red Cedar
Retinispora, 3 varieties
Swedish Juniper
Scotch Pine
White Pine
White Spruce

Especially attractive prices on large orders

Also a Complete line of Fruit and Ornamental Stock

Sherman Nursery Co.
Charles City, Iowa.

The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

Stark Bros. Nursery & Orchards Co.
LOUISIANA, MO.

THE BEST IN NURSERY PRODUCTS

We carry a full line of fruit and ornamental trees, evergreens, shrubs, etc. Send us your list of wants.

Listed below are some real winners. If what you need is not here, write for our trade list.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Magnolia Tripetela, Japan and American Judas, English Walnuts, Japan Walnuts, California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Apples and Peaches, 10,000 Downing Gooseberries, 2 years, No. 1.

HOOPES, BRO. & THOMAS COMPANY
Established 1853 — West Chester, Pa.
Maple Avenue Nurseries
Philadelphia Office:
222-3-4-5 Stephen Girard Building — 21 South Twelfth Street



P. D. BERRY
Wholesale Nurseryman
is offering for Fall 1916

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horse Radish, Hydrangea, P. G., California Privets, Barberry Thunbergii, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

Quotations furnished by letter.

P. D. BERRY,
Dayton - - Ohio

STRAWBERRY PLANTS

Let us fill your orders for Strawberry Plants

We dig and ship plants anytime from November to May.

Shipments made either to you or direct to your customers. Our plants are hardy everywhere strawberries are grown. Plants strong, vigorous and healthy with an unsurpassed root system.

All plants tied 25 to the bunch and every bunch labeled.

Every Plant Guaranteed *True to Name*

We have all the best varieties—Chesapeake, Dunlap, Sample, Big Joe, Klondyke, Aroma, Wm. Belt, Gandy, Haverland, and 70 others. Also Progressive and Superb, the best everbearing kinds.

New Berry Book and Wholesale list now ready.

Let us fill your orders—You will enjoy the praise our plants will bring you.

THE W. F. ALLEN CO.
100 MARKET ST.
SALISBURY - - - MD.

ENGLISH NURSERY STOCK

GROWN IN LARGE QUANTITIES

RHODODENDRONS a splendid lot this season, fine bushy plants. Plenty of the hardy Catawbiense named varieties suitable for the American climate including the newer and superior kinds.
AZALEAS, ANDROMEDA, KALMIA and other American plants in great variety.
CONIFERS a large stock, of all hardy kinds.
HARDY ORNAMENTAL, EVERGREEN and DECIDUOUS TREES.
ROSES. Dwarfs and Standards in all varieties.
CLEMATIS AND CLIMBING PLANTS.
FRUIT TREES Espalier trained pyramids in quantity.
MANETTI ROSE STOCKS 1 year splendidly rooted from sandy loam, none better imported.
A general assortment of hardy outdoor stock. Glad to answer inquiries.

THIRTY YEARS SUCCESSFUL TRADING IN THE STATES

No Agents. Write direct for wholesale catalogue to

WALTER CHARLES SLOCOCK, Goldsworth Nurseries, Woking Surrey, England

Half an hours rail from London & S. W. Ry., Main Southampton Line. Cable Slocock Woking. (A. B. C. Code).

"We Raise Our Own Trees"

Evergreens

SEEDLINGS—TRANSPLANTS

Select from our specialized collection of young conifers for every place and purpose. Stock particularly suited for lining out and forest planting. Your order will have personal attention and the price will be right. Send for our catalogue and save money.

Discount to Trade

The North Eastern Forestry Co.
Box E. CHESHIRE, Conn.

V.G.'S VERY GOOD

HARDY NURSERY STOCK SUCH AS
AZALEAS, BUXUS,
CONIFERS, EVERGREENS,
PAEONIES, MAGNOLIAS,
RHODODENDRONS, ROSES, ETC.

Offered by

VAN GELDEREN & CO.

Wholesale Nurseries

Ask for Catalogue — BOSKOOP (Holland)

FAIRFIELD NURSERIES

FRUIT AND SEED FARMS

OFFER *for Fall 1916*

GRAPE VINES—One and two years old. Varieties largely Moore's Early, Concord and Niagara.
Also Scarlet or Crimson Clover Seed and Cow Peas. Free from weed seeds, all recleaned and guaranteed first class.
Correspondence solicited. Price list upon request.

CHAS. M. PETERS

P. O. Address, Salisbury, Wicomico County, Md., R. F. D. 3

Long Distance Phone and Telegraph, Salisbury, Md.

The Framingham Nurseries

200 Acres
High Grade
Trees, Shrubs,
Evergreens,
Vines, Roses,
Etc.

DEAL TRADE MARK

Fine Stock
of
Rhododendrons
Kalmias
and
Andromedas

Send for Price List

W. B. WHITTIER & CO.

FRAMINGHAM, MASS.

We have a splendid stock of

Grape Vines

and other small fruit plants for the Nursery trade, graded up to the highest standard and sure to please you.

Give us a trial order, send in your list now for quotations

WHEELOCK & CONGDON
SUCCESSORS TO
WILLETT & WHEELOCK
North Collins, N. Y.

Foster-Cooke Co.

Nurserymen ***Fredonia, N. Y.***

Growers of

Grape Vines, Gooseberries, Currants

One and two years old. Graded up to the highest standard. Our stock never looked better. Write us for catalog. Send us your list of wants. Our prices are right, our stock A No. 1.

We grow our Stock up to QUALITY and GRADE, not down to a price. Nevertheless, our prices are always in line, you can't afford to pay less, and there's no sense in paying more. If you are pleased with what you have been getting, you will be better pleased with our stock.

CALIFORNIA PRIVET

Over two million plants of superior quality

All sizes from one foot to four feet — Very low rates in carload lots

Also Amoor Privet and Berberis Thunbergii in quantity

J. T. LOVETT, Little Silver, New Jersey

Vincennes Nurseries, W. C. REED, Prop.
VINCENNES, - - INDIANA

Leading Specialties for Fall 1916

Cherry, Two Year, extra fine, leading varieties in car lots

Cherry, one year, 11-16 up and smaller grades
Our Blocks of Cherry are perhaps the largest in the country

Std. & Dwf. Pear, Japan Plum, Compass Cherry
Peach, One Year, Car lots or less
Weeping Mulberry and Bungei Catalpa
Hardy Budded Pecans and English Walnuts

WE OFFER

Grape Vines, Currants and Gooseberries
in all varieties and grades
——also——
Grape and Currant Cuttings and Light Grade of Vines for Lining Out in Nursery Rows

WRITE FOR PRICES

F. E. SCHIFFERLI, Fredonia, N. Y.

We are now ready to quote lowest prices on
FRUIT, SHADE AND ORNAMENTAL TREES, SHRUBS, EVERGREENS, VINES and HERBACEOUS PLANTS

FOREST TREE SEEDLINGS we only have in limited supply this season, and would advise placing your orders early.

TREE SEEDS we can supply in limited quantities.

Send list of your requirements for lowest prices. Trade list ready.

The Willadean Nurseries

Sparta, Ky.

The Westminster Nursery
J. E. Stoner, Prop.
WESTMINSTER - - - MARYLAND

We offer for Fall 1916 and Spring 1917

500,000 PEACH, 40 Varieties, 1 year buds
CALIFORNIA PRIVET, 1 year and 2 year
ASPARAGUS, 1 and 2 year
SNYDER BLACKBERRY, root cuttings
DOWNING GOOSEBERRY PLANTS, 2 year
HYDRANGEAS, P. G., 2 to 3 feet and up
BARBERRY THUNBERGI, 2 and 3 year transplanted

Can supply the above stock in car load lots or less, also, have a large stock of Rhubarb, Cumberland Raspberry Plants, Spireas, Deutzia Assorted, nice specimen plants. Evergreens, Horse Chestnut, N. Maple, Lombardy Poplar and Planes, etc.

We will make attractive low prices for early orders
SEND LIST OF WANTS

For **FUMIGATION** With
HYDROCYANIC ACID GAS
"CYANEGG"

Sodium Cyanide in egg shape, each egg weighs as near one ounce as possible. Destroys scale insects on Fruit Trees, Nursery Stock, Plants under glass and in Greenhouses.

Manufactured in U. S. A. by
The Roessler & Hasslacher Chemical Co.
100 WILLIAM ST. - NEW YORK, N. Y.

WOOD LABELS

For Nurserymen and Florists

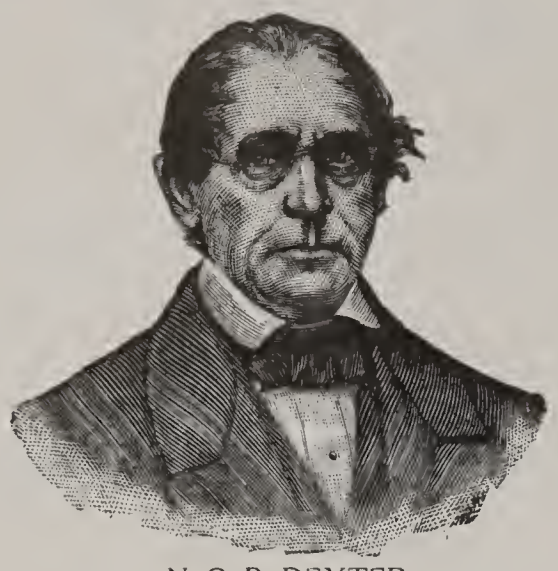
The kind that give satisfaction.

Facilities for the handling of your requisite, combined with the quality of our product is unsurpassed.

Samples and prices are at the command of a communication from you.

Dayton Fruit Tree Label Co.

South Canal St., Dayton, Ohio



N. G. B. DEXTER

Established 1820

DEXTER GRAFTING TWINE

Especially Prepared for Nursery and Greenhouse Grafting

Put up in boxes containing 20 Balls. Also furnished on cones and tubes unbleached. This yarn is so wound that it can be readily soaked in hot wax and so twisted that it is strong to wrap without breaking, yet it is easily broken when the winding is completed.

We also make a special twine on tubes, balls and cones for the Reed Bell Graft Wrapping Machine. Samples and prices furnished on request.

MADE BY

DEXTER YARN COMPANY

SOLE AGENTS

DeGRAFF & PALMER, 887 Broadway, New York City.

Tingle's New Strawberry "Messenger"

A new one that is bound to make money for the ones that grow it. Begins to ripen with the early varieties and continues for a long season. The berry is of extra large size, well colored, and very firm, making it a good shipper, excellent flavor, a good market or home table berry. The plants are exceedingly vigorous, being the strongest of any early berry I ever saw. The foliage is clean and healthy, almost, if not quite as rank as the Chesapeake plant, which it resembles very much. I have the entire stock of these plants and am now introducing it to the Trade. Am booking orders now. Several of the large growers have already placed their order. Will ship when wanted.

YOU NEED MY TRADE LIST

of Strawberry plants, 109 varieties, including the FALL BEARING varieties. HAVE A LARGE STOCK OF PROGRESSIVE AND SUPERB, true to name. My plants are well-rooted, strong and healthy. They are pleasing a good many of the large nurserymen and they will please YOU and YOUR CUSTOMERS if you use them. IT WILL PAY YOU TO USE THEM. The above is one reason why and my Price List will show you another. GET IT. We begin shipping in October and ship till May.

LEAMON G. TINGLE, 165 Railroad Ave., Pittsville, Md.

One of the largest Strawberry centers in the country.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK

The National Nurseryman Publishing Co., Incorporated

Vol. XXIV. HATBORO, PENNA., NOVEMBER, 1916 No. 11

Noteworthy Plants at the Arnold Arboretum

GORDONIA ALATAMAHA. With the exception of the Witch Hazel, which in this latitude is a shrub rather than a tree, this Gordonia is the last tree of the year to flower in the Arboretum, and its pure white, cup-shaped flowers, resembling a single Camellia flower, can now be seen on the plants on Azalea Path and on Hickory Path near Centre Street. This handsome little tree has an interesting history. It was discovered by John Bartram, the famous Pennsylvania traveler and botanist, in 1765 near Fort Barrington on the Altamaha River in Georgia. John Bartram's son William visited the locality in 1778 and collected seeds and roots of this tree, and Dr. Moses Marshall who visited the locality in 1790 was the last botanist who has seen it growing naturally. Many botanists have hunted for it in vain in the neighborhood of Fort Barrington but without success, and this tree has been preserved by the plants and seeds collected by William Bartram and their descendants. Many of these are growing in gardens near Philadelphia and there are large and very old specimens in the neglected arboreta of the Brothers Painter at Medina and of John Evans in Radnor Township, Delaware County. Good plants may be seen in Fairmount Park near the Horticultural Building and in a few private gardens near the city. This Gordonia has been an inhabitant of the Arboretum for many years where it flowers in sheltered positions every autumn. Late in the season the leaves turn orange and scarlet before falling.

SUMMER AND AUTUMN FRUITS. The interesting and often brilliant fruits of many trees and shrubs can be found in the Arboretum every year from July to March, and although this is not a remarkably good season for fruits here some plants are producing unusually large and brilliantly colored crops. Nowhere else are the fruits of trees and shrubs more attractive and more beautiful than in the northeastern United States, but the value of fruit-bearing plants for the decoration of summer and autumn gardens is hardly appreciated yet by American gardeners who are slow to realize that plants which are interesting for their flowers and fruits and increase in beauty from year to year make a setting for the gardens of eastern America which cannot be found in any other land. Such plants abound in the Arboretum and nowhere else can the fruits of trees and shrubs hardy in New England be seen and studied to such advantage.

CRATAEGUS ARNOLDIANA. This Thorn is a native of eastern Massachusetts and one of the first of the American species raised at the Arboretum where it was found growing wild on a wooded bank. It is a tree with a well developed trunk, erect and spreading branches which are furnished with many long stout thorns, the smaller branches being conspicuously zigzag. The flowers are large in ample clusters and open with the unfolding of the leaves which later grow to a good size, and are dark green in color. The fruit, however, is the handsomest thing about this tree; it is nearly globose, about an inch in diameter and bright red, and beginning to ripen from the middle to the end of August falls gradually the end of September or early in October. Of the Thorns in the Arboretum collection with early-ripening fruits *C. Arnoldiana* is the handsomest, and as a fruit tree it may well find a place in every American garden in which an early autumn display is desired.

CRATAEGUS PINNATIFIDA. This is a native of northeastern Asia and has long been an inhabitant of the Arboretum. It is a large shrub or small tree with large, deeply divided, dark green very lustrous leaves, large flowers, and bright scarlet fruit which ripens while the leaves are still green. This is one of the handsomest of all Thorns, and it is economically interesting because one of the large-fruited forms is cultivated in orchards as a fruit tree in the neighborhood of Peking and in other parts of northern China. There is a large specimen of this Thorn among the Maples near the parkway boundary of the Arboretum and others can be seen in the Crataegus Collection on the eastern slope of Peter's Hill and on the Bussey Hill Overlook.

VIBURNUM CASSANOIDES. There are only small crops of fruit on several of the American Viburnums this year but that of this inhabitant of northern swamps has never been larger or in better condition. As it grows naturally *Viburnum cassinoides* is a tall and usually unsymmetrical shrub, but in good soil it develops into a broad, round-topped compact bush. The leaves are thick, dark green and lustrous. The creamy white flowers are produced in large convex clusters, and the fruit when fully grown is at first nearly white, turning as it ripens bright pink and finally dark blue, berries of the three colors often appearing together in the same cluster. This Viburnum is a fast-growing and perfectly hardy shrub, and there are few plants which combine so much beauty of foliage, flowers and fruits. It has been largely used in the Arboretum and good plants can be seen in many of the roadside plantations, especially by the road at the top of Peter's Hill.

THE CHINESE VIBURNUMS. As compared with most of the American and some of the Japanese species the new Viburnums from western China are of small value as

flowering plants, but at least two of them, *V. theiferum* and *V. hupehense,* deserve a place in the garden for their handsome fruits. That of *V. theiferum* is found in broad, long-stalked, drooping clusters and is oval and about half an inch long. Early in October this fruit is light orange color and very lustrous but later becomes scarlet. This Viburnum has grown very rapidly in the Arboretum where it forms a broad shrub with rather spreading stems. The leaves are thick, long and narrow, dark dull green, conspicuously veined, and hang on long stalks; the flowers are small, and in small, compact clusters. The leaves are used by the Chinese in the mountain regions of the west as a substitute for those of the Tea plant. As it grows here it proves to be the best of the numerous Viburnums introduced by Wilson. *Viburnum hupehense* is a vigorous shrub with erect stems, smaller and thinner leaves than those of *V. theiferum,* and globose scarlet fruits about one-third of an inch in diameter, in broad lax, many-fruited clusters. Of no particular beauty when in flower, just now this plant is one of the most attractive of the red-fruited Viburnums in the collection. These two plants can be seen in the general Viburnum Collection on the right-hand side of the Bussey Hill Road and to better advantage in the collection of Chinese shrubs on the southern slope of Bussey Hill.

Malus Sieboldii, var. calocarpa. In the collection of Crabapples at the eastern base of Peter's Hill there is now no more beautiful plant than this large-flowered, large-fruited form of a common Japanese plant. As it grows in the Arboretum this Crabapple is a bush eight or ten feet tall and broad with dark green leaves which are oblong and slightly toothed on the fruiting branches and broad and deeply three-lobed on vigorous shoots. The flowers are rose-colored and white, and from an inch to nearly an inch and a quarter in diameter, and the large, bright red lustrous fruits are sometimes nearly an inch in diameter. This beautiful Crabapple was raised at the Arboretum from seeds sent here from Japan by Dr. W. Strugis Bigelow and it is doubtful if it is known in many other gardens. In this climate *Malus Sieboldii,* var. *calocarpa* is a garden plant of the first class.

Malus baccata, var. Jackii. This variety of the common Crabapple of eastern Siberia was raised at the Arboretum from seeds collected by Mr. J. G. Jack at Seoul in 1905 and has proved one of the handsomest and most interesting of the different forms of *Malus baccata* in the Arboretum where it is established in the Crabapple Collection at the eastern base of Peter's Hill. The trees, although small, are shapely in habit with clean stems and spreading branches. The leaves are thick, almost coriaceous, long-stalked, from four to six inches in length, very dark rather dull green above and pale below. The pure white flowers are nearly two inches in diameter, and the fruit, which is now nearly ripe, hangs gracefully on long red drooping stems. It is about half of an inch long, rather longer than broad, deep crimson and very lustrous. This is a valuable addition to the list of Crabapples which can be successfully cultivated in this climate. Unfortunately the new Crabapples which have been introduced in recent years from eastern Asia can only reach other gardens slowly for the plants in a large collection like that of the Arboretum hybridize so persistently that seedlings raised from seeds produced here are rarely like the seed parents, and the Arboretum Crabapples in their true form can only be obtained by grafting or budding.

Chinese Cotoneasters. The handsomest shrubs in the Arboretum during nearly the entire month of September was a form from western China of *Cotoneaster racemiflora* which has been called variety *soongorica.* It is a tall shrub with spreading and drooping stems, pale leaves, white flowers, and large bright red fruits which completely cover the branches. Some of the Chinese species have more conspicuous flowers and handsomer foliage, but none of them have yet equalled in the Arboretum this inhabitant of the dry arid river valleys of western Szech'uan in the size, brilliancy and abundance of their fruits.

Cotoneaster divaricata. Of the large-growing Chinese species this is perhaps the handsomest at this time, for the small bright red fruits which are produced in great abundance make a handsome contrast with the small, dark green, shining leaves. The flowers of this shrub are small and bright rose color. The new Chinese Cotoneasters are best seen on the southern slope of Bussey Hill, and the collection will repay careful study as it contains some of the most valuable shrubs for American gardens of recent introduction.

The Sassafras. There is now no more beautiful tree on the margins of New England woods and by New England roadsides than the Sassafras, as the leaves have turned or are turning orange or yellow more or less tinged with red. The autumn colors of several trees are more brilliant but none of them equal the Sassafras in the warmth and delicacy of their autumn dress. The Sassafras is a handsome tree at other seasons of the year. In winter it is conspicuous by its deeply furrowed, dark cinnamon-gray bark and slender light green branches; in early spring before the leaves appear it is covered with innumerable clusters of small bright yellow flowers which make it at that season a conspicuous and delightful object. The leaves are thick, dark green and lustrous above, paler below, and vary remarkably in shape as they are sometimes deeply three-lobed at the apex and sometimes entire without a trace of lobes. The fruit is a bright blue berry surrounded at the base by the much enlarged and thickened scarlet calyx of the flower and raised on a long bright red stalk. No other northern tree produces such brilliantly colored fruit. Unfortunately there is little time to enjoy it for the birds eagerly seek it as it ripens. The living wood of the Sassafras is not attacked by borers and the leaves are not destroyed and are rarely disfigured by insects. The thick spongy roots of the Sassafras produce suckers freely and these with a little care can be easily and safely transplanted. How many persons now plant Sassafras and in what American nursery can it be found? It was, however, one of the first North American trees carried to Europe as it was established in England some time before the middle of the seventeenth century. The American tree was believed to be the only Sassafras until 1879 when another species, *S. tzuma,* was discovered in central China. This tree is now in the Arboretum but its ability to grow here has not yet been established.

Weeping Trees. These abnormal trees have been industriously hunted for and largely propagated by nurserymen because many of their customers are interested in curious plants which are the joy of the owners of many suburban gardens, especially in Europe where happily such plants are in more general use than they are in this country. It can be said that "weeping" trees are less useful than some of the pyramidal trees for they cannot be used in mixed plantations or bear crowding, and must stand as isolated specimens in the park or on the lawn or the effect of the peculiar habit for which they are valued will be lost. Weeping trees of many of the large Willows are propagated by cuttings, and those of other trees by grafting a weeping branch on a stem of a normal tree of the same or of a related species, and it can be said generally that the Willows with pendulous branches produced from cuttings are the handsomest of the pendulous trees because they appear less abnormal.

Willows. The best known of the trees with pendulous branches is the Weeping Willow from China, a large tree with long slender drooping branchlets which sweep the ground, and narrow, dark green, very lustrous leaves. This is the common tree Willow in the region bordering the Yangtse River for two thousand miles from its mouth, and the one frequently planted in villages and cemeteries in other parts of the empire. For centuries this has been a favorite tree with the Chinese, and is a a familiar object in many Chinese pictures, and is often represented on Chinese porcelains and wood-carvings. It is uncertain when this tree first reached Europe but it was probably brought to western Europe from Asia Minor late in the seventeenth or early in the eighteenth century, and as it was supposed to be a native of the valley of the Euphrates it was named *Salix babylonica*. It is unknown when this tree was first brought to North America where for many years it has been exceedingly common in the middle and some of the southern states. In Massachusetts it often suffers from cold, and this tree is less common here now than it was fifty years ago. Hybrids of *Salix babylonica* with the European *S. alba* and *S. fragilis* are sometimes cultivated in the northern states where they are very hardy and the must beautiful of the trees with pendulous branches which can be successfully grown in Massachusetts. The best known perhaps of these trees, *S. Salamonii,* is supposed to be a hybrid between *S. babylonica* and *S. alba*. It is a large tree with a broad head of drooping branches and leaves which are dark green above and silvery white on the lower surface. Only the female tree is known and it is not known where it originated. This is a tree which should be more generally known and planted in this country. The tree known as the Wisconsin Willow is probably of similar parentage. This tree has been largely planted in the northern states where it is perfectly hardy and a handsome and useful tree; the branches are perhaps rather less pendulous than those of *S. Salamonii*. *S. elegantissima, S. blanda* and *S. pendulina* are supposed to be hybrids of *S. babylonica* and *S. fragilis*, and are intermediate in habit and foliage between their parents. *S. elegantissima* is often found under the name of *S. babylonica* in regions where the latter is not hardy. In the northern states it is sometimes called Thurlow's Willow. *S. alba vitellina pendula* is usually considered a pendulous form of the Golden-barked Willow, or as a hybrid of the latter and *S. babylonica*. Whatever its origin may be this is one of the handsomest Willows which can be grown in the northern states. In nurseries in this country it sometimes appears as *S. babylonica,* var. *ramulis aureis,* or as the Golden-barked Babylon Willow. The Kilmarnock Willow is a form (var. *pendula*) of the European *S. caprea*. It is a plant with thick pendulous branches, and when grown as a standard these form a regular umbrella-like head. This is a popular tree with American nurserymen but the specimens which they produce are more curious than beautiful.

Beeches. The European Beech, *Fagus sylvatica,* has produced several forms with pendulous branches. The best known of these trees, var. *pendula,* does not grow very tall, and the principal branches are horizontal and wide-spreading, and from them the branchlets hang down nearly vertically. In habit this is one of the most remarkable of all the trees of abnormal growth, and the great tent-like specimens which can be seen in Europe are remarkable objects. This tree was first planted in the United States many years ago. It is perfectly hardy in the northern states but grows slowly here, and there are no exceptionally large specimens in this country. Other varieties of the European Beech are var. *millonensis* and var. *bornyensis,* with more erect trunks and horizontal and pendulous branches; they are handsome trees still little known in this country. Other forms of the Weeping Beech are known as var. *pagnyensis,* var. *remillyensis* and var. *torluosa.*

Elms. There are two forms of the Wych or Scotch Elm, *Ulmus glabra,* or, as it is often called, *U. montana.* The best known of these, the Camperdown Elm (var. *camperdownensis*) as it appears in gardens is a round-topped tree with stout pendulous branches which droop to the ground from all sides of the stem and form a broad-shaded arbor. *Ulmus glabra,* var. *pendula,* often called var. *horizontalis,* is a more graceful tree. The branches are usually best developed on one side of the stem and are wide-spreading, the principal ones slightly ascending and furnished with numerous pendulous branchlets. This tree is much cultivated in Europe, especially in Germany. A form of *U. americana* with rather pendulous branches has been propagated in some American nurseries as *U. fulva pendula.* Trees of the American Elm with more or less drooping branches are not uncommon but none of them are likely to appeal to the lovers of trees of abnormal growth.

Birches. One of the European Birches, *Betula pendula,* is a tree with slender usually pendulous branches and some of its forms are among the best known and most generally planted weeping trees. The var. *dalecarlica,* sometimes called *Betula alba,* var. *pendula laciniata* or the Cut-leaved Weeping Birch, is a tree with pendulous branchlets and deeply divided leaves. For many years this tree was planted in immense numbers in all the northern states, but insects working under the bark of the trunk and branches have killed most of the trees and large specimens are now rarely seen in this country. The var. *Youngii* has more pendulous branches and when these are grafted on to a tall stem they form a picturesque head in general outline some-

thing like that of the common form of the Weeping Beech. Another Weeping Birch in habit very similar to the last but with deeply divided leaves, is var. *gracilis,* sometimes called in nurseries *B. alba laciniata gracilis pendula* or *B. elegans laciniata.*

The Weeping Ash. There are several forms of the European Ash, *Fraxinus excelsior,* with pendulous branches. The commonest of these trees (var. *pendula*) forms when grafted on a tall standard a broad umbrella-like head. Under favorable conditions this variety sometimes grows in Europe to a great size, but *Fraxinus excelsior* and all its varieties do not succeed in eastern North America and are rarely seen here in good condition. In the Arboretum pinetum there is a fairly healthy specimen of this Weeping Ash, the last survivor of an old garden which once occupied the ground. The form of *Fraxinus rotundifolia* with pendulous branches (var. *pendula*) is established in the Arboretum and is a small tree with gracefully drooping branches which form a narrow head. *F. rotundifolia* is a native of southern Europe and southwestern Asia and is sometimes called *F. parvifolia* or *F. lentiscifolia.*

Prunus. There are at least three Cherries which have produced abnormal forms with pendulous branches. The handsomest of these is the Weeping Cherry of Japan, a tall tree with spreading main branches and long slender branchlets which hang nearly perpendicularly from them ,and in early spring are covered with drooping pink flowers. The correct name for this tree is *Prunus subhirtella,* var. *pendula.* Not known as a wild tree, it has been cultivated in Japan for centuries. This beautiful Cherry-tree was brought to the United States many years ago and is now often seen in northern gardens. Few early spring-flowering trees are more beautiful than this Cherry. The form (var. *reflexa*) of the European Prunus *frulicosa* or *P. Chamaecerasus,* as it was formerly called, with drooping branches is a handsome and hardy little Cherry worth a place in small gardens. Few North American trees have produced forms with pendulous branches. An exception is *Prunus serotina,* of which there is a weeping form (var. *pendula*) which is occasionally cultivated. There are varieties of the Apricot and of the Peach with pendulous branches of no particular beauty or interest.

Cornus florida. This is another North American tree which has produced a form with wide-spreading and partly pendulous branches (var. *pendula*). As an ornamental plant this tree is not particularly valuable.

Morus alba. A seedling of a Russian variety of this tree (var. *tatarica*), known as Teas' Weeping Mulberry, appeared several years ago in the nursery of John C. Teas at Carthage, Missouri, and it is now one of the most generally planted weeping trees in the United States. When the branches are grafted on a tall stem of the common Mulberry they form a narrow, round-topped plant with branches sweeping the ground.

Malus. A form of the common Apple-tree (var. *pendula*), popularly known as "Elisa Rathke," with stout, very pendulous branches, is sometimes found in collections grown as a tall standard. As it appears in the Arboretum this tree is more curious than beautiful.

BULLETINS OF INTEREST TO NURSERYMEN

Roses for the Home. By F. L. Mulford, Landscape Gardener. Office of Horticultural and Pomological Investigations. Pp. 36, figs. 27. Contribution from the Bureau of Plant Industry. Sept. 26, 1916. (Farmers' Bulletin 750.)

This Bulletin is of general interest to those who wish to grow roses for pleasure and for the beautification of their home grounds.

Illustrated Lecture on Orchard Management. By H. M. Connolly, Assistant in Agricultural Education, and E. J. Glasson, Specialist in Horticulture and Forestry, States Relations Service. Pp. 15. Contribution from the States Relations Service in cooperation with the Bureau of Plant Industry. Sept. 1916. (Syllabus 23, States Relations Service.) Price, 5 cents.

Is designed to aid Farmers' Institute and other extension lecturers in presenting this subject.

Instruction in floriculture has been offered for the first time this collegiate year at the Ohio State University College of Agriculture. Opportunities are afforded for study of the main florist crops, their diseases, and insect enemies. Garden flowers, greenhouse management and construction as well as flower shop work and landscaping will also receive attention.

The courses are being offered both in the four-year college course which has already begun and in the three-year course which begins October 17.

Instruction is in charge of Professor Alfred C. Hottes. Professor Hottes comes to Ohio from Cornell University, New York, where he was an instructor in charge of the work in garden flowers and of the winter courses.

The Massachusetts Forestry Association has issued a circular calling attention to the laws forbidding the advertisement nuisance along the public highways, when they are attached to trees and fences without the written consent of the owner, and urging a tear-down week.

This effort to preserve the trees should be emulated by other states.

The public is taxed to maintain the highways and the public must use them. Why then should any business interest be permitted for private gain, to mar the beauty of the roadside and to mutilate public shade trees in order to secure free advertising?

The 58th annual meeting and fruit show of the State Horticultural Association of Pennsylvania will be held at Harrisburg, Pa., January 23 to 25th, 1917.

A very attractive schedule has been arranged.

Save your fruit now for this show.

A big meeting with good program will be conducted for the practical fruit grower. The vegetable section will meet at the same time.

Arrangements have been made in Harrisburg so that fruit can be held in cold storage until the date of meeting.

Apply for entry blank and shipping tag to F. N. Fagan, Secretary, State Horticultural Association of Pennsylvania State College, Pa.

AMERICAN POMOLOGICAL SOCIETY

W. H. Hutt, President of the American Pomological Society, has called a meeting to be held in Washington, D. C., November the 16th and 18th, with headquarters at the Hotel New Ebbit.

One of the chief aims of the Society at present is to federate and co-ordinate all the various Pomological interests such as Horticultural Societies and nursery associations. The present meeting will be largely devoted to this end.

In the 1915 meeting, which was held at Berkeley, resolutions were passed, inviting the National Association of Nurserymen, National Florists' Association, the National Association of Nut Growers, requesting them to hold their National meeting in 1917 at some common time and place, and urging all state and local horticultural Societies to officially join the American Pomological Society and to send delegates to their national meeting, and request a representative from the National Society to attend their own meetings.



Pyrethrum uliginosum, Perennial Daisy, at the nurseries of Oscar Wick, East Grand Forks, Minn.

BUSINESS TROUBLES

T. E. Griesa, Lawrence, Kansas, filed petition in voluntary bankruptcy on October 3rd with Mort. Albaugh, clerk of federal court in Topeka.

The liabilities in the case amount to $24,564.87, including notes on Lawrence banks, secured by mortgages The amount of unsecured credits is $9,064.87. The assets total $21,425.47, with $1,650 claimed as exempt. The assets are for the most part made up of land and the large nursery stock.

OBITUARY

ELISE J. M. LAYRITZ

Elise J. M. Layritz, beloved wife of Richard Layritz, of the Layritz Nurseries, Victoria, British Columbia, died after a long and severe illness at St. Joseph's Hospital, Victoria, B. C., on October 4th, aged 33 years.

Shall the Consumer Buy His Nursery Stock at Wholesale Prices?

National Nurseryman, New York, October 9th, 1916.
Dear Sir:—

In your editorial "A Retail Association" in the October issue of the National Nurseryman you appear to me to throw cold water on this idea when you make the following assertion:

> "An association founded on such a basis would lose more than it would gain by separating itself from the present organization as their interests are inextricably interwoven."

I cannot agree with you. I have been engaged in the nursery business since 1901 and have been a reader of the National Nurseryman since that time and I have yet to recall any action ever taken by the National Nurserymen's Association that was designed to protect the retailer.

For the last eight years I have been continually urged to join this Association. I have steadily refused because I have always considered that it could be in no way to my interest to do so. I think that any grower will agree with me in my assertions that the bulk of the nursery stock grown in this country reaches the eventual consumer through the medium of the retail dealer, and I believe that they will agree with me that the best service would be rendered to the buyers of nursery stock by a local man.

The National Nurserymen's Association has never recognized this fact nor have they ever recommended specal protection for the retailer and concession in the matter of price. Neither has the Price Fixing Association ever given them any special consideration.

All the principal large growers of ornamental nursery stock in the country are constantly extending their retail department and are steadily engaged in a propaganda of prejudice against the retailer.

Eight years ago when I went in business for myself, this propaganda was so successful in deterring people from purchasing from any one but growers that it was necessary for me to establish a nursery of my own. After I had done this I assumed, of course, that I would be considered as a grower and receive the benefits that this Price Fixing Association accorded to growers, but was told that I was too small a man to be considered.

I believe that the retailer will never get a square deal from the large grower until he has effectively perfected an organization of his own and backs up his just demands with action. I have not a very high opinion of the National Nurserymen's Association. I do not believe that any of its actions, on really important matters, have shown that they have been actuated by a broad-minded far sightedness.

When the personel of this Association is taken into consideration, it is hard to believe that such few beneficial results could be obtained from so superior a body of men.

Very truly yours,

GARFIELD WILLIAMSON.

Damascus, Ohio, October 12, 1916.
The National Nurseryman,
Gentlemen:—

In the October issue of your most valuable paper just

received we note a letter from The Coe, Converse & Edwards Co., relating to the plea entered at the "National Nurserymens' Convention in regard to wholesale nurseries sending out trade lists to people all over the country not in the trade. We want to say we are also right with Mr. M. R. Cashman in this matter and think something should be done soon. We are often confronted with wholesale lists from some of our largest wholesale nurserymen in the hands of customers only wanting enough stock to plant a lawn less than a half acre.

A prominent business man (a furniture dealer) in conversation with one of our firm recently, laughed at the way the nurserymen carried on their business and said he could not see that the A. N. A. was doing any good or in other words what was the use of having an association.

We hope some of the wholesalers will look into the future and see what it means.

Very truly yours,

West Brothers.

We are very much interested in the contents and welfare of your paper and feel greatly repaid by its abundance of valuable information.

Mr. M. P. Cashman deserves great credit for his courageous writing on pages 308 and 309 in the September issue. It touches phases often thought but never spoken or written for fear of harsh criticism. Now the question is "What has been published since by way of argument or debate on so serious a problem?"

C. S.

COSMOS

The sight of a bunch of double Cosmos brought to mind the great improvement that has been made in this flower in recent years, and judging by the new double forms, the end is not yet. The best of the double flowers were quite equal to the flowers of the double *Pyrethrum roseum* which they very much resemble, in fact, if it were not that the Pyrethrum blooms in spring, it would be very easy to mistake a vase of one for the other.

The introduction of cosmos to American gardens was due to the enterprise of Mr. J. Louis Loose, a florist of Alexandria, Virginia.

About twenty-five years ago Mr. Loose secured seed from Vilmorin Andrieux & Co., France, thinking it would be good for the cut flower trade. It proved popular from the start. The first consignment sent to Thorley, New York, resulted in a standing order as long as the crop lasted, and brought as high as two cents a bloom, counting the buds.

It jumped into immediate popularity, and it was not long before the seedsmen begun to feature it in their catalogues, and being so easily grown, soon became a general favorite.

When first introduced, it did not have a great range of color, there were whites and one or two shades of pinkish purple and if I remember rightly an occasional suggestion of crimson.

The average size of the flower was about as large as a silver dollar.

In time we shall no doubt get as great a range of form and variety as in the Aster or Dahlia.

CO-OPERATION

The old idea that "competition is the life of trade" is just giving way to the belief that co-operation is a sure winner. The writer to-day was much impressed by the statement of a large hosiery manufacturer, that he willingly gave his competitor figures of costs under his system of paying by pieee work. Such a thing would not have been dreamt of a few years ago.

There is a broader spirit of toleration and helpfulness very noticeable among progressive businesses and what is more it is being recognized as a sound business policy.

Charles P. Steinmetz writing in "Collier's" points out the fact that *"The limitation of price, forced by free competition, is below the cost of production."*

In no other line is this truer than in the nursery business. There has been absolutely no restraining forces at work to check the downward course, not even an actual knowledge of costs.

There is every reason to believe that nurserymen are beginning to realize these facts, certainly the leaders do as proved by the aim of the National Association of Nurserymen to spend $25,000 a year, for a period of five years, to advertise and develope a market for nursery products. Such an effort will have the endorsement of every nurseryman in the United States but what is really needed is the active co-operation, not only in the support of the Association but in accepting the principle of co-operation.

The effort of the individual should be to develope new business rather than compete by cutting prices. As John Watson, President of the National Association says:

"To my mind, the biggest and most practical thing we have taken up is this matter of publicity for educating and cultivating the public taste in plants and trees, to increase by every legitimate means, the use of our products in the old fields, and to develop new fields. Isn't that something worth doing? What if I do have to spend $100 a year and Bill Smith gets an order or two and isn't a contributor? I may sell him something to help him take care of his increased business. Every Rose bush advertises Roses and sells Roses. Maybe from being too tight-fisted in this advertising matter, we are looking too far the other way; but there's a middle course that few can steer and with a moderate sum, try it out and see what can be done. Look at the Red Gum people; the White Pine men; the cement campaign. A few men pay the bill and the supply is great. It isn't like the Raisin combination, nor the "Sunkist" Orange people, who represent small areas and a closely controlled supply. Those broader campaigns wouldn't continue except for results and returns.

"Something that greatly interested me was the report from St. Louis of the action taken by the Board of Aldermen, providing that the City Forester could designate certain streets for tree planting, select the trees, buy them and plant them, and assess the cost against the abutting property! 'The world do move.' Yet, when you stop to consider the comfort and convenience of shaded streets, why shouldn't trees be provided by municipalities just the same as sidewalks and pavements and lights and sewers? Why not? Whether this action will stand a legal test I have no way of knowing, not

being familiar with the city charter; the interesting thing is the way people are beginning to consider the question; the *necessity* for city shade and comfort and health."

ADVERTISING

How is it that the most palpable truth does not seem to sink into our minds and control our actions to a greater extent than it does? Take for instance advertising, not necessarily paid advertising in periodicals, but any kind of advertising that will bring goods or a name before the public.

The necessity of it is so vital to success in the present age that it really ought to be taught in the primary grades of the public schools.

Undiscovered gold lying buried in the earth is valueless to mankind, but let it be discovered and it gets free advertising.

Any of us as individuals may have unusual ability. It is valueless if it is not known. We may have the finest nursery, be capable of giving the best service, or have the best crop of trees ever grown, if they are hidden they are non-productive and valueless to the purpose they are intended.

How is it the young man has to get so old before these truths are learned when they are so self evident?

The law works both ways, advertise a bad thing, such as dishonesty in words or action and the results are what may be expected; advertise a good thing and when it becomes known results are always according to merit.

These sound very like platitudes, which they really are, and yet how many young men in the nursery business act upon them. Take for instance the nursery employee wishing to advance in his profession. Does he ever try to advertise himself as such? Does he ever try to become known outside the one customer to whom he sells his service? There must be hundreds of such employees but one rarely sees an article from them in the horticultural papers. True it costs in effort, paper and ink, but what of any value is got for nothing.

The proprietor is no less slow along the same line. It is true he has to advertise by his catalogue and other ways, but how much opportunity does he miss to tell of the good things he has and what a fine man or firm he is to do business with.

We should all try to study the ways of the publicity man when we want to become known.



A Nursery with an attractive sign.

Answers to Correspondents

Am sending you under separate cover twig, fruit and foliage of an Ilex, its habitat being in this section. What is its variety?

It looks decorative to the writer and would no doubt be a most excellent ornamental.

Has it ever been recognized and used by the trade? What would be the best manner for its propagation? If from seeds would they have to be buried out for a year or so like the *Ilex opaca?*

Could it be increased from cuttings? Would greatly appreciate your information pertaining to it.

Your well wisher and friend,

W. A. D.

The leaves of the specimens sent were all decayed through being packed too damp and the berries had all fallen off so that it was impossible to say for sure if it was *Ilex (Prinos) verticllata* or *Ilex decidua.* Judging from the appearance of the wood I should say the latter.

Both are excellent ornamental shrubs in fact Bailey's Cyclopedia says, "*Ilex verticllata* is one of the best hardy shrubs, with ornamental fruits remaining on the branches until midwinter and rarely eaten by birds."

The seed would have to be buried for a year as it does not germinate until the second spring from the time of sowing.

If you wished to work up a stock of berry bearing plants it would be necessary to graft them as the plants are dioecious, having the male and female on separate plants.

Sow the seed for stocks, then locate a good berry bearing plant from which to cut your scions. It is doubtful if it could be increased by cuttings. — *Editor.*

The National Nurseryman

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Editor .....ERNEST HEMMING, Flourtown, Pa.

The leading trade journal issued for Growers and Dealers in Nursery Stocks of all kinds. It circulates throughout the United States, Canada and Europe.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900

SUBSCRIPTION RATES

One Year in Advance $1.00
Six Months ..... .75
Foreign Subscriptions, in advance $1.50
Six Months $1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested by the Business Manager, Hatboro, Pa.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

Entered as second-class matter June 22, 1916, at the post office at Hatboro, Pennsylvania, under the Act of March 3, 1879.

Hatboro, Pa., November 1916

THE UNDEVELOPED MARKET

Anyone, thoroughly informed on the ornamental section of the nursery business, in its various phases, who will take the trouble to analyse conditions, is almost sure to come to the conclusion that in the undeveloped market lies the greatest hope of the future.

Higher prices may be necessary as well as better business methods, but after all they are only a side issue, when compared with the possible expansion of our business.

The field or prospective market falls naturally into three groups, each one requiring different methods of cultivation to bring forth an abundant harvest.

Group 1. The wealthy land or home builder who usually engages the landscape gardener to develope and plant his property, and a professional gardener to look after it when it is planted.

Group 2. The man who owns his own home or land ranging from 25 foot front to several acres, who could hardly be persuaded to pay for landscape service apart from buying plants.

Group 3. Every man, woman and child, who has facilities for sowing a few seeds, or setting out a few plants.

The first mentioned group is fairly well looked after, and there are many young men at the various schools and colleges taking up the study of Landscape Gardening, that will of a necessity develope this market.

The seed catalogue and periodical, with their fascinating literature, are undoubtedly doing good work in primary education among the masses, and while this particular field may be poor and apparently hardly worth cultivating by the nurseryman, it is gradually being brought into profitable condition by those named and other agencies.

It is the middle group that forms the fertile field that is practically lying fallow for lack of good salesmen backed up by good advertising, and good business methods to develope it.

There are plenty of men capable of taking orders, if the customer will tell them what they want, and there are plenty capable of showing a picture book with prices in. But these are only indifferent demonstrators or developers of markets.

What is wanted is men who know the stock they are selling, know where it will grow and be able to advise where and for what purpose it should be planted.

The statement is often made that growers do not make good salesmen, they know too much about the plants. Such a statement is silly, and not worthy of consideration. The man that knows stock can soon interest the prospective purchaser, and if he can be of service by telling how to arrange, plant and grow it, he is more likely to get the order than one who cannot.

Only those, who have actually canvassed this class of prospects, realize the full extent of this field, and how poor the efforts of the nurserymen have been in developing it.

It is only necessary for a good plantsman to give one look at almost any street or road in the suburbs of any town in the United States. To see Carolina Poplars used as street trees, Norway Maples planted on lawns where they will do the most harm, costly houses standing out in all their nakedness without a shrub or tree to soften their lines, or again nice lawns cluttered up with amaturish planting, all because the nurserymen have not risen to the occasion.

It is safe to say that 999 people see the outside or grounds of a home to one the interior, and it is just as true, that 99 times out of a hundred the interior is finished as well as circumstances permit, but the grounds are left largely to chance.

Pessimists will be apt to say ornamental plants are a luxury, but automobiles are too, as well as many other things which are demonstrated and pushed, and a market developed so that they become a necessity to everyone who wishes to be up with the times.

Is there any one thing that will appeal to the average man or woman more than nice home surroundings? It is up to the nurseryman to make it easy to procure them, and one of the most direct ways is, to train salesmen for that purpose.

STRAWBERRY PLANTS ARE DEFINED AS NURSERY STOCK

The Federal Horticultural Board has decided that strawberry plants are nursery stock within the meaning of the act. The strawberry is hardy in temperate climates and does not come under the definition of herbaceous plants; namely, those that perish annually down to and sometimes including the root; that is, soft, succulent plants.

In view of the wide territory through which strawberry plants are grown in this country, it is desirable to maintain inspection of strawberry plants for the reason that they may carry dangerous diseases and insect pests.

NEEDLESS JEALOUSIES AMONG NURSERYMEN

How natural it is for men in the same line of trade to feel burdened with grief, fearing that some competitor will carry off their business, or at least will affect it seriously. In most instances, I regard these fears as largely imaginary. Business success is gained or lost by the enterprise and good sense of the man at the helm, and not by what the other fellow, the competitor is saying or doing.

I was asked recently whether the reduced employment of fruit agents during the past summer and season would add to the business of the catalog men, or detract from it. The attitude of my interlocutor was that the catalog men would sell more trees since the nurseries running agents sold less trees. My answer was that catalog men will sell no more trees on account of the lessening of the solicitation of agents. My position is that every respectable tree agent is a missionary, teaching people to buy, plant and eat fruits. He goes about from house to house with attractive colored plates and causes a demand, by his apt conversation, for fruit, plants, vines and trees. If he makes a sale, he is doing good work, for all who plant trees are helping themselves and others. But if this agent does not succeed in placing his order, he implants in the minds of the people he visits a greater desire for fruit. He educates them to the point where they are likely to feel that their homes are not complete without an abundant supply of fruits and flowers.

Why should there be continuous warfare between nurserymen who do business through agents and another class of nurserymen who do business entirely through catalogs, and who employ no agents? I can see no good reason for revolution or warfare between these two classes of nurserymen. My opinion is that the man who employs agents helps the catalog man, and that the man who does business through catalogs helps the agent make sales, for the catalog man through his catalog, which has cost him many thousand dollars, educates the people in the way of fruit growing as much as the agent does by his conversation and his fruit plates when he calls upon the prospective purchaser.

This country is bigger than many of us think. There is room for all in almost every line of business. There is no reason why nurserymen of the different classes should not be friendly disposed, all united in a common brotherhood to advance fruit growing and ornamental planting, which are among the most important enterprises of the present age.

CHARLES A. GREEN,
Rochester, N. Y.

SUMAC CULTIVATION IN SICILY

There are two species of sumac grown in Sicily, the wild and the cultivated. The wild variety has a short stalk, small leaves attached two by two to a short stem, the leaves sparse covered with a white fuzz on both sides, the stem with no small leaves near its base. The cultivated plant (*Rhus coriaria*) has a longer stem than the wild, its leaves are larger and are covered with fuzz only on the lower side, and the stem of the leaf has small leaves along its entire length.

Sumac requires a dry, loose soil. The best is a clay soil with lime and silica mixed. It does not grow well in damp, compact ground. The soil may be rich or poor, so long as it is dry. However, the best sumac is grown on soil of volcanic origin. This soil, together with much heat, produces the greatest amount of tannin. The heat is perhaps the most important element in the production of tannin. In Sicily sumac is grown at all elevations up to 2,000 feet.

CULTURAL METHODS.

Sumac is planted in furrows 8 inches wide, 6 inches deep, and 27 inches apart, the plants being placed 27 inches apart in the furrow. The sprouts should be taken from a full-grown plant and care exercised that the roots are entire. They must be a year old. The planting is usually done in December or January. The ground should be plowed twice about four to six months previous to the planting. The plants should be cut down to within 6 inches of the ground.

During the first year the ground should be spaded six times, immediately after the planting, in February, April, May, June, and September. The first three spadings should be deep, the others only light. During the second year there should be three spadings, in January, March, and May. In December the little shoots that have appeared at the foot of the plant should be cut off. Sumac should be cultivated alone. The shade of trees retards development and reduces the amount of tannin.

HARVESTING THE CROP.

The gathering of the leaves takes place when they commence to turn yellow, usually in July and August. Some growers cut the twigs off near the stem and send them in this form to the thrashing floor, where the leaves are separated from the stems by beating or by thrashing with horses. However, this is not a desirable method, as it does not produce a good quality. The best method is to gather the crop in three periods. First the leaves near the stalk up to about the middle of the limb are gathered. Twenty or twenty-five days later half of the remaining leaves are gathered. A few days after this the ends of the twigs are cut off. This method gives two or three qualities of sumac, but as it requires a great deal of time and labor, the usual method is to cut off the whole plant near the ground. The twigs are piled on a floor and are turned three or four times a day with a fork.

After the leaves are separated from the wood they are taken to the mill, where they are packed in bales or ground for shipment. There is no treatment at the mill which affects the amount of tannin contained in the sumac.—*Commerce Reports.*

Rhus coriaria is a bush or low tree growing to the height of 15 to 20 feet, indigenous to Portugal and the Mediteranean region. There must be many localities in the United States that would grow it to perfection. The tannin for which it is cultivated, as described above, is used in the manufacture of fine grades of leather.—*Editor.*

"We are enthusiastic readers of the 'National Nurseryman' and believe it is improving right along, though it has for many years been a valuable asset to the business."

R. DIEHL, Overman's Nursery, Spokane, Wash.

State Laws

A Brief Synopsis of the Laws and Regulations, Relative to the Inspection, Certification and Transportation of Nursery Stock. Prepared by George G. Atwood, Chief of Bureau of Plant Industry and Published by Kind Permission of Charles P. Wilson, Commissioner, Department of Agriculture, State of New York.

ALABAMA.—A signed copy of inspection certificate must be filed with the secretary of the Alabama State Board of Horticulture, and an Alabama license obtained, also Alabama tags. Nursery and dealers' license fee, $10.00. Agents must obtain license through their principal. License fee for agents, $1.00. Dealers must designate nurseries from whom stock handled is purchased. A tag must be attached at every separate order or lot of nursery stock delivered in the state. Tags are furnished at cost: first one hundred, 65 cents postpaid; five hundred, $1.60; one thousand, $2.20, sent collect by express.

All scions and bud sticks must be properly fumigated. The following insects and fungous diseases are quarantined against: San Jose scale, new peach scale, woolly aphis, crown gall, black knot, peach yellows, peach and plum rosette, citrus canker, white fly, gypsy moth and browntail moth. Trees liable to scale infectoin must be properly fumigated with hydrocyanic acid gas. All kinds of citrus trees are quarantined execpt Satsuma orange and Kumquat. The two latter may be shipped from localities free from citrus canker upon obtainiing special citrus permit, and upon compliance with the special rules covering shipments of such trees and other hosts of white fly, or citrus canker, which is, that such trees be completely defoliated and dipped (except roots) in 6-4-50 Bordeaux mixture.

Special citrus permit tags are supplied at $1.00 a hundred; 50 cents a hundred for additional lots. These must be used in addition to regular tags on all shipments containing citrus trees. Prof. Ernest Walker, State Horticulturist, Auburn, Ala.

ARIZONA.—Nursery stock shipped into the state must be prominently labeled with the name and the address of both the shipper and the consignee, and must be accompanied by a valid certificate of inspection or a copy of such certificate. Shipments into the state, consisting of or containing plants not grown in the locality from which shipment was made, must, in addition, specify where such plants were grown.

State quarantine orders now in effect and of interest to nurserymen prohibit; (No. 1) the importation of stock from sections infested by the alfalfa weevil; (No. 4) rooted grape vines from north of the north line of San Bernardino, Kern, and San Luis Obispo counties, California; (No. 8) the importation of citrus nursery stock from all other states and territories and of cape jessamine, privets, and rubber plants from North Carolina, South Carolina, Georgia, all states bordering on the Gulf of Mexico, and Yuba County California; (No. 11) the importation of olive trees. Other quarantines relate to the Mexican orange maggot (quarantine made practically inoperative owing to establishment of Federal quarantine), cotton boll weevil, date palm scales, and citrus canker. None of these latter concern shipments of nursery stock into Arizona from outside sources.

All shipments of living plants into the state of Arizona are inspected by Arizona state inspectors and not delivered until a certificate of release is issued in each case to the common carrier and to the consignee. If trees or plants are infested or infected with insect pests or plant diseases of general occurence in the section of the state where the shipment is received, treatment to eradicate, or the separation of the infested or diseased plants or trees, is in most cases permissible; otherwise all plants or trees of the kind found to be infested or diseased are held in quarantine and are shipped from the state or destroyed at the owner's option. Copies of quarantine orders furnished upon application. A. W. Morrill, State Entomologist, Phoenix, Arizona.

ARKANSAS.—Shipments of nursery stock into the state must be accompanied by a copy of the valid certificate of inspection, and must bear the name and address of the consignor and consignee with a statement of the contents of the shipment; all shipments not so labeled or tagged must be refused for shipment by the carrier. Carriers bringing into the state shipments of nursery stock which originated in foreign countries or foreign possessions of the United States must notify the State Entomologist in writing and must hold such stock at any place designated by him until the same has been duly inspected and released.

Nurserymen located out of the state may secure permits by filing with the State Entomologist a copy of their certificate. Geo. G. Becker, State Entomologist, Fayetteville, Ark.

CALIFORNIA.—Shipments of nursery stock into California are held by transportation companies until inspected by the state officials. All packages must be marked with the name and address of the shipper, name of the consignor, and the name of the country, state, or territory where the contents were grown. Peach, apricot, and almond trees from districts wherre yellow and rosette are known to exist shall be refused entry and shall be destroyed or returned to the shipper. White pine trees, currants, and gooseberries from points east of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas are refused entry into California for reason of white pine blister rust, and must be returned to shipper or destroyed. Notice of shipment of nursery stock to California should be sent to the following address, and also to the quarantine guardians at the point of destination: Frederick Maskew, Chief Deputy Quarantine Officer, Room 11, Ferry Building, San Francisco, California.

COLORADO.—The State Entomologist has general supervision of the inspection of nurseries and orchards to prevent the introduction and spread of injurious insects and plant diseases. County horticultural inspectors in fruit-growing counties of the state are appointed by the county commissioners, after passing a satisfactory examination given by the State Entomologist, under whose direction they work. All nursery stock coming into the state must bear certificates of inspection and fumigation and on arrival in counties that have inspectors is turned over to them and released to consignee if it passes inspection. C. P. Gilette, State Entomologist, Fort Collins, Colo.

CONNECTICUT.—All nursery stock shipped into this state shall bear on each package a certificate that the contents of said package have been inspected by a state or government officer and that said contents appear free from all dangerous insects and diseases. If nursery stock is brought into the state without such a certificate, the express, freight, or other transportation company or person shall, before delivering shipment to consignee, notify the State Entomologist of the facts, giving name and address of consignee, origin of shipment, and approximate number of cars, boxes, or packages, and probable date of the delivery to the consignee. The State Entomologist may cause the inspection and, if infested, the treatment of the stock. No person, firm, or corporation shall unpack any woody field-grown nursery or florists' stock brought into this state from foreign countries except in the presence of an inspector, unless given permission to do so by said State Entomologist or one of his deputies. If such stock is found infested with any dangerous pests the State Entomologist may at his decretion order it treated. Any person violating any of the provisions of this act shall be fined not more than $50. Dr. W. E. Britton, State Entomologist, New Haven, Conn.

DELAWARE.—Shipments of nursery stock into the state must bear a certificate of inspection and also a certificate stating that the stock has been properly fumigated. All nursery stock not accompanied by proper certificates may be held by the transportation companies until it can be inspected. Wesley Webb, Secretary, State Board of Agriculture, Dover, Del.

FLORIDA.—To each package of nursery stock shipped into the state must be attached a Florida permit certificate tag and a certificate issued by the state inspection official of the state where grown. These tags may be secured at cost from the undersigned by the deposit of a satisfactory certificate of inspection signed in ink by the proper inspection official of the state of issue. A duplicate invoice covering each shipment made into this state must be filed in the office of the Nursery Inspector at Gainesville, Fla., promptly after the shipment has gone forward. The shipment of citrus into Florida is prohibited. All host plants of San Jose Scale must be fumigated before shipment. The entrance of all infested or diseased stock is prohibited. All plants capable of defoliation must be defoliated. Shipments must be completely and securely covered or wrapped. Nursery Inspection Circular No. 5 explains all of the details and will be sent free to those applying to F. M. O'Byrne, Nursery Inspector, State Plant Board, Gainesville, Fla.

GEORGIA.—Nurseries are inspected annually. A signed duplicate of inspection certificate, together with a statement by the nurserymen that all stock intended for Georgia will be fumigated in accordance with directions furnished them, must be filed in the office of the State Entomologist. Official tags of the Georgia State Board of Entomollogy will be furnished through the State Entomologist at the following prices: one hundred tags, 60 cents, postpaid; 200 tags, 85 cents, postpaid; 300 tags, $1.10 postpaid; 500 tags, $1.35, sent by express, collect; 1,000 tags, $2, sent by express, collect. Each shipment of nursery stock into the state

of Georgia must bear the official tag of the Georgia State Board of Entomology and also a duplicate certificate of inspection of the state from which the shipment is made. There is a strict quarantine against all citrus stock from Florida, Alabama, Mississippi, Louisiana and Texas except on special certificate from Chief Inspectors of those states. Prof. E. Lee Worsham, State Entomologist, Atlanta, Ga.

IDAHO.—No person, firm, or corporation shall import or sell nursery stock without first applying to the State Board of Horticultural Inspection and filing a bond in the sum of $5,000 and securing annual license upon payment of $10. Shipments into the state should bear a copy of an official certificate of fumigation emanating from the place where the stock was grown. All shipments into the state must bear a label showing the name of the shipper, the locality where grown and variety of nursery stock. All nursery stock, fruit trees, or horticultural plants sold or delivered by principal or agents shall be true to name and variety as represented. All nursery stock shipped into this state, whether bearing certificate of inspection or not, must be inspected again upon its arrival, the consignee paying for such inspection. Every nursery firm doing business in this state must pay annually $1 additional for each agent who represents them.

The state of Idaho has established a quarantine against the State Entomologist, Ames, Iowa.
states of New Hampshire, Vermont, Massachussetts, Connecticut, New York, and Pennsylvania, and forbids the shipment from these states of any five-leaved pines, currants, or gooseberries into the state of Idaho. Guy Graham, State Horticultural Inspector, Boise, Idaho.

ILLINOIS.—State nurseries are inspected and certified not later than October 1. An inspection certificate shall be valid for one year from date of inspection. The State Entomologist is authorized to revoke a certificate if he finds it is being used in violation of the law. He is also required to furnish all Illinois nurserymen with a list of state and government inspectors whose certificates may be received as equivalent to his own, and the nurserymen receiving stock under such certificates is authorized to substitute for them the Illinois certificate of inspection. Each dealer in nursery stock who has no nursery of his own and each agent for a nursery located outside of Illinois is required to furnish to the State Entomologist annually a sworn statement showing that the stock in which he deals has been duly inspected, and to submit for approval a copy of the certificate of inspection, and to attach a copy of such certificate if approved, to every parcel of nursery stock delivered. Nursery stock shipped into the state must bear a certificate of inspection attached to each car, box, bale, bundle, or package. Dr. S. A. Forbes, State Entomologist; P. A. Glenn, Chief Inspector, Urbana, Ill.

INDIANA.—All nurseries are inspected between June 1 and October 1 and at such other times as the head of the inspection department may consider advisable. Stock sent into or within the state must be plainly labeled with the name of the consignor and the consignee and must bear a certificate signed by a state or government official showing that the inclosed stock has been inspected and found free from injurious insects and plant diseases. All foreign-grown stock must be inspected upon arrival at its destination in Indiana. All dealers and agents engaged in selling or soliciting orders for nursery stock in the state of Indiana must take out a license which is issued by the State Entomologist. All nursery firms or other persons whose place of business is outside the state of Indiana and who ship nursery stock into Indiana are required to file with the State Entomologist a copy of their valid certificate of inspection and procure a license, which is good for one year from the date of issue. The fee for license is $1 in all cases. Frank N. Wallace, State Entomologist, Indianapolis, Ind.

IOWA.—State nurseries are inspected at owner's request or if supposed to be infested with dangerous injurious insects or plant disease, and nurserymen are prohibited from selling or shipping without inspection. Shipments into the state must be accompanied by a cetificate of apparent freedom from injurious insects or plant disease. A copy of inspection certificate must be filed with and approved by the State Entomologist. R. L. Webster, Acting

KANSAS.—Nurseries are inspected annually between June 15 and November 1. Certificates are valid until the first day of the following June. No nursery stock shall be brought into the state nor offered for sale within the state without having been properly inspected as shown by an accompanying certificate. State Entomological Commission, Topeka, Kan.; Prof. Geo. A. Dean, Entomologist, Manhattan, Kan.; Prof. S. J. Hunter, Entomologist, Lawrence, Kan.

KENTUCKY.—Nurseries are inspected annually. Every package of nursery stock shipped into the state must have a copy of a certificate of inspection attached and bear on the label a list of the contents. Duplicate certificates of inspection may be filed with the State Entomologist. Prof. H. Garman, State Entomologist, Lexington, Ky.

LOUISIANA.—Each package, parcel, box, bundle, or bale of nursery sock shipped or moved into Louisiana for delivery in this state from any state or country must be prominently labeled with a copy of a valid and unexpired certificate of inspection from the authorized nursery inspector of the state or county where the nursery stock was grown, and must also be prominently labeled with a copy of a valid and unexpired certificate from the entomologist of Louisiana. Written authorization and special certificate tags must be secured from the entomologist for each shipment of citrus nursery stock to be shipped into Louisiana for delivery in the state.

A fee of $5 must be paid for a permit to ship nursery stock into Louisiana, and a copy of nursery inspection certificate from the authorized nursery inspector of the state or country in which the stock was grown must accompany the request for a permit to sell nursery stock in the state.

Orders for certificate tags to be used on shipments for delivery in Louisiana must be placed with the etomologist and money for tags must accompany the order. Up to 1,000 tags, delivered by insured parcel post, the price will be $1.55 for the first 100 tags, and 40 cents for each additional hundred. Orders of over 1,000 tags will be shipped by express, collect, at $1.50 for the first hundred and 35 cents for each additional hundred.

Address all communications to J. B. Garrett, Entomologist, Baton Rouge, La.

MAINE.—All nursery stock shipped into the state shall bear on each box or package a certificate that the contents have been inspected. The State Horticulturist has power to inspect at point of destination all stock entering the state. No person, excepting growers, shall carry on the business of selling nursery stock or soliciting purchases without first obtaining a license. The license fee shall be $5 per annum. The license shall be issued in the name of the dealer, salesman, or agent, as the case may be. C. L. Wilkins, Horticulturist, Department of Agriculture, Augusta, Me.

MARYLAND.—Nurseries are inspected at least once in six months. All nursery stock subject to attack of insect pests must be fumigated. Shipments into the state must be labeled with the name of consignor and consignee and each package bear a certificate of inspection. Duplicate certificates should be filed with the State Entomologist. Dr. T. B. Symons, State Entomologist; Prof. C. E. Temple, State Pathologist, College Park, Md.

MASSACHUSETTS.—Nurseries in the state are inspected annually. Agents or other persons, excepting growers, who desire to sell nursery stock in the state shall make application to and receive from the State Nursery Inspector an agent's license, and shall file with the State Nursery Inspector names and addresses of all prsons or nurseries from whom they purchase stock. It shall be unlawful for any person, firm, or corporation to sell, deliver, or ship into the state any nursery stock unless such person, firm, or corporation holds a grower's certificate or an agent's license, and a copy of such certificate or license must accompany each car, box, or package delivered or shipped.

The State Nursery Inspector shall have power to inspect at its point of destination all nursery stock coming into the state, and should such stock be found to be infestedwith injurious insects or plant diseases he may cause it to be destroyed, treated, or returned to the consignor at the consignor's expense. Dr. H. T. Fernald, State Nursery Inspector, Amherst, Mass.

MICHIGAN.—Nurseries are subject to inspection; infested trees must be destroyed, and all stock subject to the attack of the San Jose scale, which has been grown within a half mile of where this scale has been found within two years, must be fumigated with hydrocyanic acid gas. Shipments into the state must bear on every package, plainly labeled, the name of the consignor and consignee, statement of contents, and a certificate showing that the contents have been inspected by a state or government officer; and, if of species subject to the attack of San Jose scale, must be fumigated with hydrocyanic acid gas. Certificates of fumigation must also be attached, together with a copy of the certificate of inspecion. This applies to individual orders when several are contained in the same shipment. All nurserymen, whether residents of Michigan or other states, who wish to grow or sell stock within te state must apply to the State Inspector of Nurseries on or before August 1 of each year for a license, for which the fee is $5. A bond for $1,000 must also be filed. Certificates of inspection must be filed with the State Inspector of Nurseries before any stock is shipped into the state. Prof. L. R. Taft, State Inspector of Nurseries and Orchards, East Lansing, Mich.

MINNESOTA.—Inspection, annual and compulsory. Inspection may be oftener if it seems desirable.

Shipments into the state must be accompanied by a certificate of inspection.

Carrying companies accepting stock not so tagged are responsible and liable to prosecution.

Dealers in other states sending stock into Minnesota for sale must file a copy of their certificates with the State Entomologist. Prof. F. L. Washburn, State Entomologist, St. Anthony's Park, Minnesota.

MISSISSIPPI.—Nurseries are inspected at least once each year after August 1.

Nurseries outside of Mississippi desiring to ship plants into this state must file with the Entomologist, Agricultural College, Mississippi, a certificate of nursery inspection issued by the duly authorized state official in charge of nursery inspection.

This certificate must state that the nursery is properly equipped for fumigating plants with hydrocyanic acid gas. The proprietor or manager of the nursery must also file a statement that all apple, pear, peach, and plum stock will be fumigated immediately before being shipped into Mississippi.

Each package, box, bale, or bundle of nursery stock shipped into this state must be accompanied by a copy of the certificate of inspection and all shipments containing apple, pear, peach, or plum stock must also be accompanied by a statement that the plants have been fumigated with hydrocyanic acid gas. All shipments of nursery stock must be plainly marked to show the names and addresses of both consignor and consignee, the number and kinds of plants, and the name of locality where grown.

Nurseries are required to furnish the Entomologist, Agricultural College, Mississippi, a duplicate invoice giving exact contents of each shipment of nursery stock made into this state. These duplicate invoices should be mailed at the same time that the shipments are made.

Because of the prevalence of citrus canker, the importation of all kinds of citrus plants into Mississippi has been prohibited. R. W. Harned, Entomologist, Agricultural College, Miss.

MISSOURI.—Nurseries are inspected annually. Each nursery outside of Missouri shipping stock into Missouri must apply at the office of the Chief Inspector for a permit, which will be issued upon filing the necessary papers and copy of their nursery inspection certificate. No fee is charged for the permit. All agents or salesmen must apply for an agent's permit. Every package of nursery stock shipped into the state must be clearly labeled with the name of the consignor, consignee, statement of contents, and a certificate showing that the stock therein contained has been inspected where grown by a duly authorized inspector and found to be apparently free from dangerously injurious insect pests and plant diseases. The transportation companies are not permitted to deliver nursery stock unless so labeled. Leonard Haseman Entomologist and Chief Inspector, University of Missouri, Columbia, Mo.

MONTANA.—All stock brought into the state must be unpacked, inspected, and fumigated, if necessary, at one of the designated quarantine stations; viz., Glendive, Miles City, Billings, Bozeman, Lewiston, Helena, Great Falls, Missoula, Victor, Como, Darby, Plains, Mondak, Glasgow, Havre, Kalispell, and Eureka. Nursery stock may be inspected and fumigated at other points of delivery on payment of all costs. All shipments coming into Montana from other than licensed nurseries are subject to an inspection fee of 10 per cent of the invoice price of the shipment, or 50 cents minimum fee. All correspondence and notice of shipment, including an invoice of stock, must be sent to M. L. Dean, State Horticulturist, Missoula, Mont.

NEBRASKA.—All nursery stock shipped into the state shall be labeled with the names of consignor and consignee and a certificate showing inspection since July 1 preceding. Prof. Lawrence Bruner, State Entomologist, or Prof. Myron H. Swenk, Assistant State Entomologist, University of Nebraska, Lincoln, Neb.

NEVADA.—Nursery stock shipped from other states shall bear on the outside of each car, bale, or package a label giving the names of the consignor and consignee, together with a copy of an inspection certificate of recent date. Such certificates of inspection must bear signature of a qualified person in authority in the state in which such nursery stock was grown. No transportation company shall deliver any nursery stock lacking such official certificate of inspection. S. B. Doten, Director, Experiment Station, Reno, Nevada.

NEW HAMPSHIRE.—Nurseries are inspected at least once each year. Shipments into the state must be accompanied by a certificate of inspection or, in lieu thereof, an affidavit showing that the stock has been fumigated with hydrocyanic acid gas, using not less than 2-10 of 1 gram of cyanide of potassium per cubic foot of space, in an air-tight compartment for not less than 40 minutes. A copy of the certificate of inspection or a copy of the affidavit must be attached to each car, box, or package shipped into the state. Hon. Andrew L. Felker, Commissioner of Agriculture, Concord, N. H.

NEW JERSEY.—The law requires the inspection of all nurseries at least once in each year. Shipments into the state must be accompanied by a certificate of inspection of current date, or copy thereof, attached to each car or parcel, together with a statement from the shipper that the stock therein is a part of the stock inspected, and stating whether such stock has been fumigated with hydrocyanic gas or not. It shall be the duty of all carriers to refuse for transportation within the state all stock not accompanied by a certificate of inspection. All stock coming into the state may be detained for examination, wherever found, by the State Entomologist or the State Plant Pathologist, and if found to be infested with any insects or plant diseases, injurious or liable to become so, will be destroyed.

"It shall be the duty of every nurseryman, or other person who imports plant material of any kind from without the state, and every transportation company or other carrier for hire that brings plant material from without the state for delivery to any person, persons, firm, or corporation within the state, to notify the State Plant Pathologist of such shipment prior to, or within twenty-four hours after, its arrival. Such notice shall state the kind and quality of plant material, the name and address of the shipper, the date of shipment, and, if from a foreign country, the name of the county or district in which the shipment originated, the port of entry and the approximate date of arrival at said port. If the State Plant Pathloogist has any reason to suspect the presence of a dangerous disease, he may order the examination of every package of such material, in transit or at the point of delivery, and shall not authorize its acceptance or delivery until he is satisfied that no dangerous disease is present." Dr. T. J. Headlee, State Entomologist, New Brunswick, N. J.; Dr. Mel. T. Cook, State Plant Pathologist, New Brunswick, N. J.

NEW MEXICO.—No law relative to transportation of nursery stock. The Territorial Legislature of 1903 provided for county boards of horticultural commissioners, which were given authority to control orchard pests. Prof. Fabian Garcia, Horticulturist, Agricultural Experiment Station, State College, N. M.

NEW YORK.—

All nursery stock shipped from any point in the state of New York must have attached to each car, box, bale, or package a copy of a certificate of inspection issued by the State Department of Agriculture, signed by the Commissioner of Agriculture and valid to September 1, 1917.

All transportation companies bringing nursery stock into this state shall immediately notify the Commissioner of Agriculture of the fact that such stock is in their possession or is en route to some point within the state, and give name of consignor and consignee and the points of shipment and destination of each consignment, and shall also make such further report relative to shipments as the Commissioner of Agriculture may from time to time require.

All dealers in nursery stock must, if they have no growing nursery stock in this state, file with the Commissioner of Agriculture their name and address, together with a list of all persons, firms or corporations of whom they buy nursery stock. No stock shall be sold, shipped, or delivered unless accompanied by a copy of a certificate signed by the Commissioner of Agriculture or his authorized representative, indicating freedom from insect pests and fungous diseases. When all such stock is collected, an inspection will be made and proper certificates provided by this department to permit shipping.

All growing nursery stock in the state will be inspected annually or oftener if necessary; if found free from injurious insects or fungous disease there will be issued to the owner a certificate of inspection, which certificate will expire September 1, 1917.

Every car, box, bundle, or package must have attached an exact copy (including date of issue and date of expiration) of said certificate before shipment or delivery.

All nursery stock found growing within one-half mile of areas infested with San Jose scale must be properly fumigated as required by the regulations of this department before shipment or delivery.

No nursery stock received from points within the state of New York shall be sold or delivered unless it bears a valid certificate of inspection on arrival.

Any nursery stock brought into the state must remain packed and unopened until permission is given by the Commissioner of Agriculture or his duly authorized representative. To faciliate rapid inspection, receivers of nursery stock should notify the department office at Albany or an authorized inspector of the receipt or expected receipt of consignmnts, givingthe name and address of consignor and dates.

No nursery stock shall be shipped or delivered unless there is positive evidence that it has been inspected and certified by authority of the Commissioner of Agriculture.

September 1, 1916.

NORTH CAROLINA.—Every shipment of nursery stock into this state must be accompanied by a valid copy of a certificate of

inspection. Every person, firm, or corporation desiring to ship nursery stock into this state must file a copy of their certificate with the entomologist. It will be of advantage to the nurserymen if they attach a guarantee of fumigation to the shipment. A copy of regulations will be sent on application. Franklin Sherman, Jr., Entomologist, State Department of Agriculture, Raleigh, N. C.

NORTH DAKOTA.—The director of the Experiment Station is authorized to cause inspection and prescribe treatment of diseased nursery stock. Shipments into the state must bear a certificate of inspection. Every person who employs agents or salesmen or who solicits for the sale of nursery stock must obtain a license upon the payment of $10 and upon filing a certificate of inspection and a $500 bond. Said license will permit holder to do business in the state for one year. Director, North Dakota Experiment Station, Agricultural College, N. D.

OHIO.—Shipments of nursery stock entering the state must bear the name of the consignor and consignee and be accompanied by an official certificate of inspection or fumigation. Transportation companies are required to notify the State Board of Agriculture of all shipments of nursery stock entering the state. Agents are required to pay a license fee of $1 and dealers a license fee of $5, also to file sworn statements that the stock which they sell or deliver has been officially inspected and was received by them accompanied with a valid certificate of inspection or fumigation. N. E. Shaw, Chief, Bureau Nursery and Orchard Inspection, Columbus, Ohio.

OKLAHOMA.—The following is a copy of surety bond to be used by nurserymen outside the state of Oklahoma who desire to dispose of nurser stock in the state of Oklahoma:

In accordance with Section 17, Senate Bill 342, Oklahoma Session Laws of 1914-15, this surety bond guarantees to the state of Oklahoma that the nursery represented will not dispose of nursery stock of an inferior grade, or nursery stock that is untrue to name, or nursery stock infested or infected with insects or diseases that are considered to be injurious by the Oklahoma State Board of Agriculture. Furthermore, the nursery represented in this bond guarantees by this bond to strictly comply with the law established by the state of Oklahoma and the rules and regulations promulgated in compliance therewith, by the Oklahoma State Board of Agriculture.

In the new regulations governing the nursery business in this state, which the State Agricultural Board will probably adopt at its next monthly meeting, there will be a provision whereby certificates for the agents of the nurseries will be certified to the employer, such certificate to terminate whenever the agent discontinues work for that employer, the certificate of the state to be held by the nurseryman during the agent's employment. F. M. Gault, President, State Board of Agriculture, Oklahoma City, Okla.

OREGON.—The State Board of Horticulture has charge of inspection within the state. All nursery stock brought into the state must be inspected at station of delivery before delivery to consignee. If found infected or infested, nursery stock must be returned to consignor or destroyed. Peach pits, peach trees and scions, and other trees on peach roots grown in or coming from districts where peach yellows, little peach, or peach rosette are known to exist, are prohibited entry. Every carload and case containing nursery stock, trees, plants, etc., must have plainly marked thereon in a conspicuous manner and place the name and address of consignor; name and address of consignee; name of country, state, or territory where contents were grown and must show that it contains nursery stock, seedlings, or seeds. Address H. M. Williamson, Secretary, State Board of Horticulture, Portland, Oregon.

PENNSYLVANIA.—Nurseries must be inspected at least once a year, and no nurseryman, agent, dealer, or broker can legally sell or ship stock without a certificate of inspection. Certificates of fumigation are required to accompany shipments from other states, and the word "fumigated" printed or stenciled on or accompanying the certificate of inspection will not be accepted unless it is apparent that such word is a part of the certificate granted by a state inspection officer.

Nurserymen from other states are required to file affidavits that all nursery stock of kinds subject to infestation by San Jose scale will be properly fumigated before shipment into the state. Blanks furnished upon application. Dealers in nursery stock are granted certificates upon application and the filing of a statement that they will buy nursery stock only from nurserymen or growers holding valid certificates of inspection.

Transportation companies are required to reject all stock entering the state, unless certificates of inspection and fumigation are attached. Dr. J. G. Sanders, Ecomonic Zoologist; Enos B. Engle, Chief Nursery Inspector, Harrisburg, Pa.

RHODE ISLAND.—The Inspection Law provides that the State Board of Agriculture shall apoint a State Entomologist whose duties it shall be to inspect nurseriets and orchards and to grant an annual certificate for sale of nursery stock. All nursery stock shipped into the state must bear on each package a certificate that the contents have been inspected by an authorized inspection officer. The State Entomologist is, furthermore, authorized to inspect any nursery stock which comes into the state, even when sent in under an official certificate, if he deems it advisable, and shall order its return to the consignor if any injurious insects or plant diseases are found therein.

An affidavit of fumigation is no longer accepted in lieu of official inspection.

Agents who have no nursery, and who wish to sell nursery stock within the state, must apply to the State Entomologist for an agent's license and must state where they propose to purchase their stock to be sold. A. E. Stene, State Entomologist, State House, Providence, R. I.

SOUTH CAROLINA.—Stock coming from other states, provinces, or foreign countries and consigned to points within this state must have attached to every bundle or package an interstate tag or permit issued by the South Carolina Crop Pest Commission. This interstate tag or permit can be issued only after the certificate of inspection of the state, country, or province where shipment originated has been approved by the South Carolina State Crop Pest Commission and filed in the office of the entomologist or pathologist of the said commission. It is further required that the fumigation certificate of the South Carolina State Crop Pest Commission be properly filled out and filed in the office of the entomologist or pathologist of the commission before the interstate tag or permit can be issued, unless the official inspection certificate includes a statement that the nursery is properly equipped for fumigating.

Stock coming from other states, provinces, or foreign countries and consigned to points within this state, must have attached to every bundle, or package, an interstate tag, or permit, issued by the South Carolina Crop Pest Commission. This interstate tag, or permit, can be issued only after the certificate of inspection of the state, country, or province, where shipment originated, has been approved by the South Carolina State Crop Pest Commission and filed in the office of the entomologist or pathologist of the said commission. It is further required that the fumigation certificate of the South Carolina Crop Pest Commission is properly filled out and filed in the office of the Entomologist or Pathologist of the Commission, before the interstate tag or permit can be issued, unless the official inspection certificate includes a statement that the nursery is properly equipped for fumigating. Prof. A. F. Conradi, State Entomologist; Prof. H. W. Barre, State Pathologist, Clemson College, S. C.

SOUTH DAKOTA.—All nursery stock shipped into the state must be accompanied by a certificate of inspection issued by the State Entomologist of the state from which it was shipped. Any person, firm, or corporation owning a nursery that sells stock to be delivered in this state must certify where the stock was grown and attach this statement to all shipments. Harry C. Severin, State Entomologist, Brookings, S. D.

TENNESSEE.—Nurseries are inspeced annually, or oftener if necessary. Any person, firm, or corporation without the state, desiring to do business within the state, shall file with the State Entomologist and Plant Pathologist a copy of his certificate of inspection issued and signed by proper official of his state, as well as an agreement to fumigate properly all stock shipped into the state. Every shipment must be accompanied by a copy of said certificate of inspection and a fumigation tag. Every individual sale or bill of trees shall bear a copy of certificate. Failure to comply with the requirements subjects stock to confiscation.

Following is the form of required agreement to fumigate:

We, the undersigned, agree to fumigate with hydrocyanic acid gas, according to the required strength, all nursery stock subject to attack from San Jose scale and other dangerous insect pests. We also agree to attach a fumigation tag to each and every shipment going into the state of Tennessee.

Prof. G. M. Bentley, State Entomologist and Plant Pathologist Knoxville, Tenn.

TEXAS.—Nurseries and greenhouses are inspected annually. All shipments of nursery stock originating outside the state must not only bear shipping tags showing copy of certificate of inspection from the State Inspector of the state in which the shipment originates, but in addition thereto must have a tag showing copy of permit from Texas. Freight and express companies in this state are prohibited from receiving or delivering shipments which do not bear tags showing copy of Texas permit and they are exempt, by law, from damages arising from refusal to deliver such shipments.

No nursery stock shall be shipped into the state by any person or company without first filing with the State Department of Agriculture a certified copy of certificate of inspection from State

Inspector of the state in which the shipment originates. A fee of $5 is required for issuance of permit to ship into the state. Agents or dealers operating in Texas for nurserymen outside of the state, must procure proper credentials, as agents, from their nurseries; on a form furnished and approved by the Commissioner of Agriculture, and each agent or dealer must be prepared to present such credentials at all times.

Dealers are classed as nurserymen and are required to take out permit. Greenhouses and greenhouse plants are included for inspection by the Texas law and all State Inspectors should advise their nurserymen, florists, or owners of greenhouses that they must have a Texas certificate before they can make shipments into the state. Ed. L. Ayers, Chief Inspector, Houston, Texas.

UNITED STATES.—All persons who intend to import trees or plants from any foreign country should first apply for, and receive, a permit from the Federal Horticultural Board, U. S. Department of Agriculture, Washington, D. C., under the Plant Quarantine Act of August 20, 1912.

A permit should be applied for in advance. This permit should preferably be taken out by the person who is to receive the goods at the final destination. A broker or commission merchant may take out a permit in his own name, if he imports for his own account, or he may act as agent for and take out the permit in the name of the actual purchaser. The importer must see that each package on arrival at the port of entry bears the proper certificate of foreign inspcetion. He must also see that each package is marked in accordance with Section 3 of the act. As a matter of convenience, this marking should contain also the additional information called in Section 4, to avoid the trouble of re-marking before the goods can be delivered for interstate shipment. The certificate of inspection must be, and the marking preferably should be, on the goods before they leave the foreign port.

On the arrival of the stock, and before shipping or removing it from the port of entry, he must advise the Secretary of Agriculture and the proper state inspectors in accordance with Section 2 and Regulation 8. He must see that each container is marked in accordance with Section 4; that is, in addition to the information in the label of entry, each container must bear the name and address of the consignee at destination, where the stock is to be inspected by the state, territorial, or district official.

Any person receiving imported nursery stock and reshipping it, interstate, before it has been inspected by a duly authorized state, territorial, or district inspector or officer, is required, prior to making such reshipment, to notify the Secretary of Agriculture and the duly authorized inspector or other officer of the state, territory, or district, to which the nursery stock is to be reshipped, giving the number of cases, the bale numbers and marks, the quantity and kind of nursery stock, and the name and address of the consignee. If possible, the permit number under which the stock was imported, and the name and address of the foreign shipper should also be given.

Failure to meet the requirements of the law, as outlined above, subjects importers or persons making interstate shipments to the penalties fixed in Section 10 of the act.

A pamphlet entitled, "Rules and Regulations under the Plant Quarantine Act: General, Including Nursery Stock," containing the regulations governing the importation of nursery stock into the United States and the text of the Plant Quarantine Act of August 20, 1912, as amended March 4, 1913, may be obtained on application to the United States Department of Agriculture, Federal Horticultural Board, Washington, D. C.

NURSERY STOCK BY MAIL

The following is a copy of order 6313 of Postmaster-General, dated May 29, 1912, amending paragraph 8, section 496 of postal laws and regulations, to read as follows:

> Nursery stock, including florists' stock, trees, shrubs, plants, vines, cuttings, grafts, scions, buds, bulbs and roots (which may carry injurious insects), may be admitted to the mails only when accompanied by a certificate from a state or government inspector to the effect that the nursery from which said nursery stock is shipped as within a year heen inspected and found free from injurious insects.

UTAH.—No person shall engage in the business of selling or importing nursery stock without having first obtained a license to do business in the state. Any person may obtain a license from the State Horticultural Commission upon the payment of a fee of $2.50 annually and by filing with the State Horticultural Commission a bond in the sum of $500. Each salesman or agent must hold an authorization from the firm he represents, giving his name and the name and address of the person he represents, together with a license number of his principal. A copy of the certificate of inspection must be attached to each shipment. All nursery stock will be quarantined on arrival and, if deemed necessary, disinfected or destroyed at the cost of the owner. J. Edward Taylor, State Horticultural Inspector, Salt Lake City, Utah.

VERMONT.—Nurseries are inspected annually. Nursery stock shipped into the state shall be accompanied by a certificate of inspection and the name and post-office address of the consignor and consignee. M. B. Cummings, State Nursery Inspector, Burlington, Vt.

VIRGINIA.—Before selling nursery stock, it is necessary to procure from the Auditor of Public Accounts, Richmond, Virginia, a certificate of registration for which the fee is $20 for principals; duplicates for agents' use free. Send certified check or draft for $20 drawn or indorsed payable to the Treasurer of Virginia. (Personal check will not be accepted.) Duplicate of certificate of nursery inspection must be filed with the State Entomologist, who will furnish tags at cost, and one tag must be attached to each package of stock to be sold in the state. W. J. Schoene, State Entomologist, Blacksburg, Va.

WASHINGTON.—No person shall sell or distribute nursery stock or solicit for sale without first obtaining a license to conduct business in the state. All licenses expire July 1. The license fee for nurserymen and tree dealers is $5, and for agents $1. Nurserymen and tree dealers must execute a bond in the sum of $1,000 to cover compliance with the state laws in that the nursery stock covered by said license be true to name and variety.

The state is divided into ten horticultural districts and an inspector-at-large is in charge of each district. All shippers of nursery stock into the state must give notice of their intention to ship by notifying the inspector-at-large into whose district the shipment is made, and sending a copy to T. O. Morrison, Assistant Commissioner of Agriculture, Division of Horticulture, Olympia, Washington.

WEST VIRGINIA.—The Commissioner of Agriculture has power to provide quarantine regulations concerning the transportation and sale of nursery stock. No person or corporation either for himself or as agent for another shall offer for sale, sell, or deliver nursery stock unless he shall have first procured from the Commissioner of Agriculture a certificate of registration, the annual fee for which is $5. All nursery stock entering the state must be accompanied by a certificate of inspection and also by an official permit tag obtained from W. E. Rumsey, State Entomologist, Morgantown, W. Va.

WISCONSIN.—All persons, firms, or corporations shipping nursery stock into the state are required to file a duplicate certificate of inspection, and secure a state license, if selling at retail or through agents. Each shipment must bear certificate tags, which shall be attached to each package, box, or carload lot. Transportation companies are forbidden to deliver nursery stock unless accompanied by valid certificate tags. All agents selling nursery stock within the state must be supplied with an agent's duplicate certificate, which shall bear the same number and date as that of the principal. Wilful misrepresentation of quality or variety of stock offered for sale shall constitute a punishable misdemeanor. No fees are charged.

QUARANTINE NOTICE

THE WHITE PINE BLISTER RUST

The existence of the dangerous imported disease of white pine trees known as the White Pine Blister Rust (*Perridermium strobi* Kleb.), in several of our eastern states has been confirmed by Federal authorities: In addition to the known infected areas, other localities are suspected of harboring the disease.

Believing that the white pine trees of Wisconsin would be endangered by the shipment of white pine trees into the state from outside sources, an absolute quarantine is hereby established, prohibiting the shipment into this state of any of the following species of pines or their horticultural varieties, viz., white pine (*Pinus strobus* L.), *western white pine* (*P. monticola* Dougl.), sugar pine (*P. lambartiana* Dougl.), stone or cembrian pine (*P. cembra* L.), and Bhotan or Himalayan pine (*P. excelsa*).

Hereafter and until further notice, by virtue of Chapter 413, Laws of 1915, shipment into Wisconsin from any source of the species of pine and their varieties hereinbefore named is prohibited. State Entomologist Madison, Wis.

WYOMING.—Licenses are issued on application for a period terminating on July 1 of the next succeeding inspection year (approximately two years). Applications should be accompanied by the license fee of $25, and by a cerified certificate of inspection from an authorized inspector in the state from which shipments are to be made. On receipt of these the Secretary of the State Board issues authorized shipping tags at cost. Transportation companies may not deliver unless such tags be attached to each shipment. A copy of the law may be secured from the Secretary of the State Board of Horticulture, Prof. Aven Nelson, Laramie, Wyo.

CANADA.—No nursery stock shall be imported that is infest-

ed with any of the following insect pests or diseases: San Jose scale, brown-tail moth, gypsy moth, woolly aphis, West Indian peach scale, potato canker, gooseberry mildew, internal and external parasitic diseases of potato, branch canker, blister rust of white pine, Mediterranean fruit fly, potato tuber moth. Nursery stock shall be imported only through the ports and during the periods mentioned: Vancouver, B. C., from October 1 to May 1; Niagara Falls, Ont., from October 1 to May 15; Winnepeg, Man., North Portal, Sask., and St. John, N. B., from March 15 to May 15, and from October 7 to December 7; Windsor, Ont., and St. Johns, Que., from March 15 to May 15, and from September 26 to December 7.

Importations by mail are prohibited. The port by which it is intended that the nursery stock shall enter shall be clearly stated on each package, and notice of shipment must be sent to the Dominion Entomologist, Ottawa. European nursery stock and certain other classes of vegetation may in the case of certain ports be allowed to proceed and shall be inspected at point of destination, but must not be unpacked except in the presence of the inspector. Copies of the regulations governing the importation of nursery stock into Canada may be obtained from Dr. C. Gordon Hewitt, Dominion Entomolgist, Ottawa, Canada, to whom all inquiries should be addressed.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC.

Required by the ACT OF CONGRESS OF AUGUST 24th, 1912

Of the NATIONAL NURSERYMAN, published monthly at Hatboro, Pa., for October 1st, 1916.

State of Pennsylvania,
County of Philadelphia.

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared Thomas B. Meehan, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the NATIONAL NURSERYMAN, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation) etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24th, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse side of this form: to wit:

1. That the names and addresses of the publisher, editor, managing editor and business managers are:

Publisher—THE NATIONAL NURSERYMAN PUBLISHING CO., INC., Hatboro, Pa.

Editor,—ERNEST HEMMING, Flourtown, Pa.

Managing Editor, ERNEST HEMMING, Flourtown, Pa.

Business Manager—THOMAS B. MEEHAN, Dresher, Pa.

2. That the owners are:

Mrs. Ellen B. Yates, Rochester, N. Y.
James McHutchison, New York City, N. Y.
Thomas B. Meehan, Dresher, Penna.
Albert F. Meehan, Dresher, Penna.
Penrose Robinson, Hatboro, Penna.

3. That the known bondholders, mortgagees and other security holders owning or holding 1 per cent. or more of total amount of bonds, mortgages, or other securities are: NONE.

THOMAS B. MEEHAN, Business Manager.

Sworn to and subscribed before me this 18th day of Oct., 1916.

Victor Paul, Notary Public.

(My commission expires January 21st, 1919.)

TREES ON PASTURE

Perhaps one of the greatest sources of loss of fertility from pasture soils results from the poor location of shade trees and brush, according to the author of The Grazing Industry of the Bluegrass Region, a bulletin recently published by the department. Trees and brush, he states, should always be set on the higher portions of the field and not along the banks of running streams, as so often is the case. With good grass, the animals do not graze more than one-third of the time; the rest of the time is spent lying down or standing in the shade fighting flies. Hence much of the manure that is made does not get back directly on the land that produced the grass. If the manure produced while the animals are not grazing is deposited on the tops of the hills, its beneficial effects on the grass may be noted for several rods down the hillsides. It is easy to believe that if one-half to two-thirds of the manure is lost from pasture fields and none is added, the crops must gradually deteriorate.

AMERICAN ASSOCIATION OF NURSERYMEN

President—John Watson, Newark, N. Y.
Vice-President—Lloyd C. Stark, Louisiana, Mo.
Treasurer—Peter Youngers, Geneva, Neb.
Attorney and Secretary for the Association—Curtis Nye Smith, Boston, Mass.
Executive Committee—John Watson, Chairman, Newark, N. Y.; J. B. Pilkington, Portland, Oregon; John H. Dayton, Painesville, Ohio; Henry B. Chase, Chase, Alabama; Theodore J. Smith, Geneva, N. Y.; J. R. Mayhew, Waxachachie, Texas; E. S. Welch, Shenandoah, Iowa; Lloyd C. Stark, Louisiana, Missouri.

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Report of Proceedings—Curtis Nye Smith, Boston, Mass.
Nomenclature—J. Horace McFarland, Harrisburg, Pa.
Tariff—Irving Rouse, Rochester, N. Y.
Press—Ralph T. Olcott, Rochester, N. Y.
Telegraphic Code—R. C. Chase, Chase, Ala.
Hail Insurance—Frank A. Weber, Nursery, Mo.
Publicity—F. L. Atkins, Rutherford, N. J.
Distribution—M. R. Cashman, Owatonna, Minn.
Legislation—William Pitkin, Rochester, N. Y.
Transportation—Charles M. Sizemore, Louisiana, Mo.
Landscape—W. H. Wyman, North Abington, Mass.

STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irving Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

Canadian Association of Nurserymen—President, E. D. Smith, Winona; secretary, C. C. R. Morden, Niagara Falls, Ont.

Connecticut Nurseryman's Association—President, Walter E. Campbell, New Haven, Conn.; secretary, F. L. Thomas, Manchester, Conn.

Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Litooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Massachusetts Nurserymen's Association—President, G. Howard Frost, West Newton, Mass.; secretary, Winthrop H. Thurlow, West Newbury, Mass.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell, Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, E. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, E. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York. Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio; secretary, W. B. Cole, Painesville, Ohio.

Oregon—Washington Association of Nurserymen—President, C. F. Breithaup, Richland, Wash.; secretary, C. A. Tonneson, Tacoma, Wash.

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Philadelphia. Secretary, Henry T. Moon, Morrisville, Penna.

Southern Nurserymen's Association—President, Harry Nicholson, Winchester, Tenn.; secretary-treasurer, O. Joe Howard, Pomona, N. Carolina.

Tennessee Nurserymen's Association—President, A. I. Smith, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Tennessee State Florists' Association—President, Karl P. Baum, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Denlnson, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

October 13, 1916.

Editor of The National Nurseryman,

Flourtown, Pa.

Dear Sir:—

In the last issue of your paper I noticed an article on "Clinging Vines." No mention was made of *Ficus repens* which is an excellent vine for covering brick walls. Perhaps it was omitted because it is not hardy in the North; however it can be grown in protected places as far north as Augusta, Ga.

Bignonia venusta and *Bignonia Chamberlainii* are also good clingers but they are probably too tender outside of Florida.

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F. F. Halma, *Assistant Horticulturist.*

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CONIFER AND ACORNS
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APPLE—2 and 3 yr., in all grades.
APPLE, 7–8 ft., 3 yr., heavy.
PEACH—A select lot.
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PRIVET—The finest lot in the Country 1 and 2 yr. heavy, low prices on carload lots.
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25,000 Planes 2 yr. for transplanting, also a general line of nursery stock. Send us a list of your WANTS and prices will be right.

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Seedlings or Rooted Cuttings, in Large Lot
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These trees are standard northern varieties and are as fine as any ever produced. We will quote wholesale prices on request on lots of fifty or more.

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Peach Trees and Strawberry Plants

all leading market sorts for Fall 1916

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NEWARK, N. Y.

ESTABLISHED 1893 # THE NATIONAL NURSERYMAN INCORPORATED 1902

The only Trade Journal devoted exclusively to the interests of growers and dealers in nursery stock.

Edited by a practical nurseryman, Ernest Hemming, Flourtown, Pennsylvania, to whom all correspondence pertaining to the Editorial Department, should be addressed.

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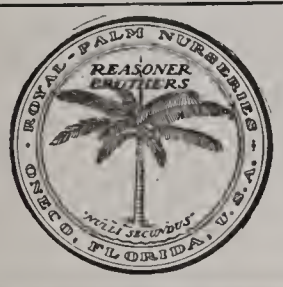
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You cannot buy better even though you paid more.

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1½" to 8" in.

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3 to 15 feet

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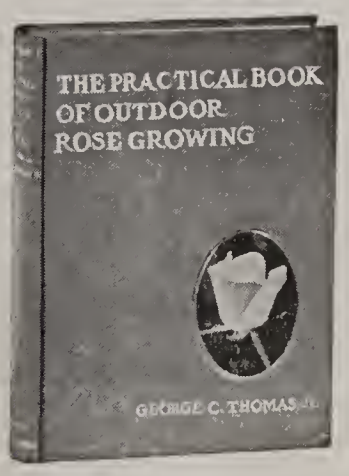
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A fine stock of Hackberries, Koelreuteria, Tulip Poplar, Magnolia Purpurea, Texas Umbrella, Sycamore and Elms.

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Ornamental Shrubs

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Write us for quotations

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We offer for sale our usual supply of strictly first-class one year and two year

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Can furnish some extra heavy trees for landscape work.

Both Mahaleb and Mazzard Roots

Send us a list of your wants

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Vincennes, - Indiana

L. R. TAYLOR & SONS

Topeka, - Kansas

FOR FALL 1916

A Fine Lot of

Apple Seedlings

FRENCH and JAPAN PEAR SEEDLINGS

Forest Tree Seedlings

-ALSO-

Apple Trees
Peach Trees
Pear Trees
Cherry Trees
Forest Trees

Bobbink & Atkins

Nurserymen and Florists

RUTHERFORD, NEW JERSEY

Palms and General Decorative Plants, Conifers, Shade and Ornamental Trees

INSPECT INVITED

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RICE BROTHERS COMPANY.

Geneva, - - - N. Y.

Before placing your order for Fall, 1916, and Spring, 1917, get our prices on:—

APPLE, PLUM,
PEAR STD. and DWARF,
PEACH, CHERRY,
QUINCE, APRICOT,
ROSES, SHRUBS,
ORNAMENTAL TREES, ETC.

Large assortment of above.

A Large Stock of

Apple, Pear, Cherry and Peach Grape Vines, Blackberry and Raspberry Plants

And a general line of ORNAMENTAL TREES and SHRUBS. All stock clean and thrifty, the best that can be grown.

T. B. WEST, Perry, Ohio.

Fruit Trees, Roses, Manetti Stocks

in heavy quantities

JOHN WATSON, Nurseryman,
NEWARK, NEW YORK,
Is our sole agent for the United States and Canada

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The Nurseries - Hounslow,
Est. 1820 England

W. T. HOOD & CO.

OLD DOMINION NURSERIES

RICHMOND - - VIRGINIA

We offer for Fall 1916

A complete line of Nursery Stock. We can make Special prices on Peach trees, Apple trees, &c. We also have to offer a nice line of Norway Maples, Pin Oaks, Oriental Planes, &c. California Privet, Amoor River Privet, Norway Spruce, Peach Seed, Tenn. and N. C. Naturals.

Send us your want list for quotations.

SCARFF'S NURSERY

Headquarters for

Small Fruit Plants

1200 Acres "At it 25 Years"

Strawberries	Currants	Rhubarb
Raspberries	Gooseberries	Asparagus
Blackberries	Grape Vines	Horse Radish
Dewberries	Privet	Hardwood Cuttings

100,000 transplanted Raspberry, Blackberry and Dewberry plants for retail trade. See wholesale list before placing your order.

W. N. SCARFF

NEW CARLISLE, OHIO

W. FROMOW & SONS

Azalea mollis, Rustica & Ghent in all the leading varieties, grown from layers not grafted.

Manetti Stocks clean and well rooted for grafting or open ground.

Standard, Climbing, Weeping and Dwarf Roses in great variety Rhododendrons, the cream of the Hardy American varieties.

Andromeda floribunda, japonica, and speciosa, bushy budded plants.

Kalmia latifolia.

Green and River's Purple Beech in all sizes up to 12 feet.

Prices and full particulars on application.

WINDLESHAM NURSERIES

Surrey, - - - England.

Portland Wholesale Nursery Co.

Rooms 6 & 7 122½ Grand Ave. Portland, Oregon

WHOLESALERS OF NURSERY STOCK AND NURSERY SUPPLIES

A very complete Line of Fruit and Ornamental Trees, Shrubs, Vines, &c.

Specialties

CLEAN COAST GROWN SEEDLINGS
OREGON CHAMPION GOOSEBERRIES
and PERFECTION CURRANTS

Write now.

A New Book out March 25th

"HOW TO GROW ROSES"

120 pages, Library Edition

A book of 120 pages, 5x8, of which 16 illustrate leading Roses in natural colors. All the necessary instructions which will be of value to the amateur are presented in clear, simple and concise form. Where, when and how to plant. Fertilizers, Insecticides, Planting, Pruning, Mulching, Winter Protection, with important lists of the best Roses for every imaginable place and purpose. Contains Calendar of Operations, in itself quite valuable. Regular price $1.00 postpaid. For quantity, prices (2 or more) mention National Nurseryman and address the author.

ROBERT PYLE

President of The Conard & Jones Company

West Grove, - - Penna.

TREES

Largest assortment in New England. Evergreens, deciduous trees, both common and rarer varieties. Sturdy, choice stock that can be depended upon. Send for catalog and special trade prices.

The Bay State Nurseries

North Abington Mass.

SHRUBS

This New England soil and climate produce fine sturdy shrubs. Special trade prices. By the thousands, hardy Native and Hybrid Rhododendrons—transplanted and acclimated. Send your lists let us est.

ORNAMENTAL STOCKS

NURSERIES
420 ACRES

WE GROW

FRUIT TREE STOCKS—All Sizes.
300 varieties of Conifers, 1 to 4 years old.
1200 varieties of Ornamental Trees and Shrubs, 1 to 3 years old
1600 varieties of New and Old Ornamental Trees & Shrubs in all Sizes
250 varieties of Climbing Plants.
400 varieties of Conifers, 1 to 4 feet high.
400 varieties of Perennials.
800 varieties of New and Old Roses.

We Have No Agents. Write direct to us and ask for WHOLESALE CATALOGUES

TRANSON BROS. & D. DAUVESSE'S NURSERIES,

16 Route d'Olivet — **BARBIER & CO., Successors** — Orleans, France

QUALITY AND SERVICE

FRUIT PLATES, BINDINGS, NEW DESCRIPTIVE CATALOGUES, READY MADE PLATE BOOKS, PRINTED FORMS.

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ROCHESTER LITHOGRAPHING CO.
ROCHESTER, N.Y.

NURSERY BANDS

Manufacturers of

STEEL BOX STRAPPING

FOR

NURSERY PURPOSES

½-inch, ¾-inch, 1-inch and wider, cut to any length from 8 inches to 72 inches, at lowest possible prices Have, sometimes, bargain lots of steel strapping, 1-inch to 1½-inch wide, random lengths. : . : :

WRITE US

COVERING YOUR WANTS IN STEEL BANDS

American Steel Band Co.,

888 Progress Street, ALLEGHENY, PA.

THE CHASE LABELS

For Nurserymen and Florists are Excelled by None

Plain, Painted, Wired with Tinned or Copper Wire and

PRINTED IN ANY MANNER that may be called for

Prices as low as First-Class Work and Unequalled Promptness in Delivery will justify.

THE BENJAMIN CHASE CO.
P. O. Address, DERRY VILLAGE, N. H.
Western Union Telegraph, DERRY, N. H.

YOUR WAR TROUBLE IS OVER WHEN YOU DEAL WITH KLUIS & KONING, Boskoop, Holland

Rhododendrons best hardy var.
Azalea mollis & Hardy Ghent
Roses, large variety
Hardy Climbers
Evergreen Shrubs
Conifers
Magnolias
Shrubs, Perennials, etc.

Our MR. KONING is in the U. S. permanently.
A splendid system of shipping between him and us, PREVENTS ALL DELAY.
WRITE HIM FOR QUOTATIONS TODAY and address all correspondence to s—

WM. G. KONING
Care P. C. Kuyper & Co., 12 Broadway, N. Y



The Norway Maples listed below are grown in this block. Notice the space between the rows – plenty of room to develop

Harrisons' Norway Maples
in Extra-Large Sizes

You are thoroughly alive to the fact that Norway Maples are "head liners" among the desirable trees for street planting, for grouping in the landscape, and as single specimens.

The important point is to get **good** trees; trees that were properly spaced in the nursery row so that the early development was not retarded, then transplanted to encourage root growth, trained to a well-formed head, and properly cultivated so that the trees are strong and with sufficient vitality to stand the shock of transplanting.

Trees of this character are growing in our nurseries at Berlin. From the day the seedlings showed above ground they have received the most painstaking care; the sole aim has been to grow Norway Maples that can be planted with perfect safety and best effects in any park or cemetery, or in special landscape work. These superior trees are offered in several sizes so that you can select just the kind of tree for your special work. At present we list the following sizes and quantities:

We have here at Berlin big blocks of all the desirable deciduous shade trees, shrubs and plants. Another special feature is the section given to evergreens in variety—Blue Spruce, Retinisporas, Hemlocks, White Pines.

Send us a list of your requirements—it will be a pleasure for us to submit special prices.

5,000, 7 to 8 ft., 1 in.	10,000, 2½ to 3 ins.
10,000, 8 to 10 ft., 1 to 1½ ins.	5,000, 3 to 3½ ins.
15,000, 10 to 12 ft., 1½ to 1¾ ins.	1,000, 3½ to 4 ins.
15,000, 12 to 14 ft., 1¾ to 2 ins.	3,000, 4 ins.
10,000, 14 to 16 ft., 2 to 2½ ins.	125, 6 ins.
	125, 5 ins.

The Two Great Evergreens
for American Plantings

For several years we have been getting ready to make a drive on Koster's Blue and Colorado Blue Spruces. The trees have been carefully grown, root-pruned, transplanted as needed, and now they are ready to be shipped.

We will sell them at prices that will be attractive to the man who buys in quantities. If your plans call for a thousand trees, or as few as ten, write us for prices on

Koster's Blue and Colorado Blue Spruce

Spruce, Koster's Blue	
300, 18 to 24 in.	300, 3 to 4 ft.
300, 2 to 3 ft.	300, 4 to 5 ft.
200, 5 to 6 ft.	

Spruce, Colorado Blue	
200, 2 to 3 ft.	100, 4 to 5 ft.
400, 3 to 4 ft.	100, 5 to 6 ft.
50, 6 to 7 ft.	

No other evergreens are so effective for mass plantings in city parks, private grounds and cemeteries. Our trees are well-branched, shapely specimens, have splendid roots, are carefully burlapped and packed. These trees are superb specimens—you can plant them with the utmost confidence in their quality and vigor.

Write us for special prices on the various sizes that you need.

HARRISONS' NURSERIES, Berlin, Md.

Press of Robinson Publishing Company, Hatboro, Penna.

INDEX NUMBER

THE NATIONAL NURSERYMAN

DECEMBER 1916

Published Monthly at Hatboro, Penna., U. S. A., in behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General

THE MONROE NURSERY

Established 1847.

Offers a Fine Stock of

Peach, Gooseberries,
Currants, Berberis,
Spirea Van Houtte,
Other Ornamental Shrubs,
H. P. Roses, Etc.

Will be pleased to quote on your list of wants

I. E. Ilgenfritz' Sons Co.

MONROE, MICH.

MOUNT ARBOR NURSERIES

E. S. WELSH, Pres.

Shenandoah, Iowa

OUR SPECIALTY

A complete line of high quality nursery stock for wholesale trade.

APPLE SEEDLINGS

We are now assured of a choice lot of strong, healthy seedlings, which were grown on new land in the seedling district.

The supply of heavy seedlings is very limited. We have about 200,000 strong ¼ inch and an equal number of 3-16 inch and up, also a good supply of No. 2 and No. 3. Will make special grades if desired.

GRAFTS

Apple and Pear Grafts made to order. A good list of varieties.

Consult us about your wants before buying.

Nursery Trade

depends largely on Confidence.

BUSINESS SECRETS REVEALED

FELIX & DYKHUIS

WHOLESALE NURSERIES

Boskoop, - - Holland

Ask for Our Beautifully Illustrated Catalogue

TOP NOTCH BERBERRY THUNBERGII SEEDLINGS

Big Drop in Prices. Come to Us.

Also { Peaches, Apples, Shrubs, Privet, H. P. Roses

Large Assortment of Varieties at Right Prices.

C. R. BURR & CO.,

MANCHESTER, CONN.

HOLLAND NURSERY STOCK

FALL OR SPRING SHIPMENT

From Schaum & Van Tol, Boskoop, Holland

Boxwood bushes, pyramids etc.; Roses, Rhododendrons, Evergreens, Hydrangea P. G., Azaleas, Koster Blue Spruce

PRICES READY NOW—WRITE FOR THEM.

French Fruit and Ornamental Stocks

from Vincent Lebretons Nurseries, Angers, France. Catalog ready now.

Norway and Schwedler Maples, Lindens, Oaks, Planes, Elms, Thorns and all deciduous trees from Union Nurseries, Oudenbosch, Holland.

Gooseberries and Manetti stocks from England.

Hardy Lilies (Auratum, Rubrum, Album, etc.), from Japan.

Herbaceous Perennials, etc., from Royal Tottenham Nurseries, Holland.

Raffia, Red Star brand and three other grades always on hand.

Write for prices

McHutchison & Co., The Import House **95 Chambers St., New York.**

FOR THE FALL OF 1916

A Large Stock of

APPLE, one, two and three year.

CHERRY, one and two year.

PEAR, one, two and three year.

PLUM, one and two year.

Will have 200,000 2-year CHERRY that promise to be very fine.

Also a large stock of Elm, Norway, Sugar and Soft Maple, Catalpa Bungei and a general assortment of other ornamental trees, shrubs, hedge plants, perennials, small fruits, etc.



C. M. Hobbs & Sons

Marion County

Bridgeport, - - Indiana

A Marvelous New Peony

After much experimenting Leon Renault's Nursery of Orleans, France, has perfected a handsome herbaceous Peony, which has been introduced as

The Lord Kitchener

This new variety is brilliant cherry-red in color, with flowers well-filled out, and of substance to make them exceptional keepers.

The plant is a vigorous grower, and produces numerous perfect blooms earlier than any other variety. In fact, Lord Kitchener is the EARLIEST of all Chinese Peonies.

Your request for quotations or your immediate orders should be sent to

F. J. GROOTENDORST & SONS

ROOM 1101, 10 BROADWAY

New York, - New York.

who are the sole agents for Leon Renault, in the United States.

Send us a list of your wants in lining-out stock of all kinds and we will send you quotations.

PAINESVILLE NURSERIES



HEMLOCK SPRUCE

Of course, it is now too late to dig or ship anything more before spring, but we have chosen an evergreen,—the beautiful Hemlock Spruce,—as an illustration, because the winter aspect of evergreens when buried in their overcoats of snow, is one of their most attractive features.

Stock which looks good to people during the winter, will be largely ordered by them in the spring.

We do not specialize in Evergreens,—like Brutus does,—but we have some mighty fine blocks of practical northern-broke varieties, grown right, and available at proper time in spring at ordinary commercial prices.

We had a big snow storm here which shut down shipping, and may have disappointed a few late-comers,—but in general, our fall delivery has been quite complete, and a criterion of better times.

Naturally, our thoughts now turn towards spring. Our cellars are well filled with a good assortment of fruit trees and the smaller ornamentals, besides considerable imported stock; so that we are in good shape to take care of early orders for setting aside.

Those who didn't order for fall delivery until the ground froze, we expect to get in for spring before the leaves appear;—Experience being a most efficient teacher.

Wishing you all a "Merry Christmas," we are gratefully and sincerely yours,

THE STORRS & HARRISON CO.

NURSERYMEN --- FLORISTS --- SEEDSMEN

ESTABLISHED 1854

PAINESVILLE, OHIO.

1200 ACRES
45 GREENHOUSES

Jackson & Perkins Company

Growers of the "Preferred Stock,"—the "Made in America" kind, which is right here *where* you want it, *when* you want it and *as* you want it.

Newark, - - New York

For 1916-1917 we have the largest stocks that we have ever grown, including good supplies of the usual "J. & P." specialties.

In Ornamentals:

ROSES, field-grown

TREE-FORM HYDRANGEAS

CLEMATIS
(Largest stocks in America)

TREE-FORM LILACS

AMPELOPSIS VEITCHII

DUTCHMANS PIPE
(Not hyphenated. Born and raised here)

SHRUBS
(Extra fine stock)

PERENNIAL PLANTS
(Large assortment)

SHADE TREES

In Fruits:

APPLES PEARS PLUMS

PEACHES QUINCES
(None finer grown)

CURRANTS GOOSEBERRIES

Jackson & Perkins Company

Newark, - - New York

☞ We sell *to the trade only*. We do not compete with our own customers by selling to planters.

Heikes—Huntsville—Trees



To Meet Your Needs in

Peach, Apple, Cherry, Pear, Plum, Compass-Cherry-Plum, Apricot, Pecan Seedlings, Privets, Roses (budded and own-root), **Abelia Grandiflora, Berberis Thun., Spirea V. H. and Reevesiana, Lonicera Fragrantissima and Halleana, Kudzu Vines, and Sundry Ornamentals.**

In good assortment of standard varieties. All our own growing.

Send us your orders and inquiries.

ROSES, Budded H. P's. One of our Specialties.

We grow them by the hundred thousands.

HUNTSVILLE WHOLESALE NURSERIES

HUNTSVILLE, ALA.

Hill's Evergreens

You can work up a good profitable trade in Evergreens if you have the right kind of stock. Our main specialty for over half a century has been the propagation of young Evergreen stock for the wholesale trade in immense quantities at low prices.

We have all the leading varieties in small sizes, for all purposes, suitable for lining out to grow on for your trade.

Nurserymen who have heretofore depended on Europe for their young Evergreen plants can now be assured of a good reliable source of supply right here in America, and we solicit the opportunity of quoting on your requirements.

"Made in U. S. A." and "American Stock for American Planters" should, from now on, more than ever, be the slogan of American Nurserymen for it means "money saved in the long run" to start with nice, strong, sturdy, vigorous American-grown stock which has been produced right here in America.

YOU want to keep posted on Evergreens;

WE want to become better acquainted with you;

Let's get together.

The D. HILL Nursery Co., Inc.

Evergreen Specialists

LARGEST GROWERS IN AMERICA.

Box 401 - Dundee, Ill.

SPECIAL NOTICE

APPLE QUINCE PEAR CHERRY
PEACH PLUM

A Fine Block of
Own Root Roses

ORNAMENTAL TREES SHRUBS
BERRIES CLEMATIS
EVERGREENS PEONIES PHLOX
and
HERBACEOUS PERENNIALS

Write for our Special Prices

SPECIAL ATTENTION given to Dealers, complete lists and carload lots.

W. & T. SMITH COMPANY

GENEVA, N. Y.

70 Years 1000 Acres

Christmas Greetings
To American Nurserymen

Now, at the close of a busy year, and when you are planning for a still better year in 1917, we send you our holiday greetings.

We also wish to thank you for the increase in our business, for it has been so good that we expect to have but very little surplus left at the close of the spring season, so you had better get busy now and place your order for trees, shrubs, roses, evergreens and bulbs.

Our New York office will give your orders prompt attention.

F. J. Grootendorst & Sons

Room 1101 10 Broadway

New York City

Oriental Planes

The best shade tree for street planting; tall, wide-spreading, easily transplanted, free from insect pests and flourishes in spite of dust and smoke. We have some especially good blocks of straight trees with well-branched heads. Also Maples, Poplars and other shades together with a complete assortment of Shrubs and Evergreens.

We do not compete with our customers through Agents, Catalogues, Auctions or Department Stores.

We solicit the support of those in the Trade who approve of that policy.

Princeton Nurseries

Nov. 1. Princeton, New Jersey

J. H. Skinner & Co.

Topeka, - Kansas

Apple Seedlings

Japan and French Pear Seedlings

Forest Tree Seedlings

FRUITS TREES **SMALL FRUITS**

Rhubarb, Myatt's Linnaeus, divided roots, pure stock; Shade Trees, including a fine lot of Soft Maple and White Elm.

CATALPA BUNGEI

6½ foot stems, straight and smooth

Bechtel's Double Flowering Crab

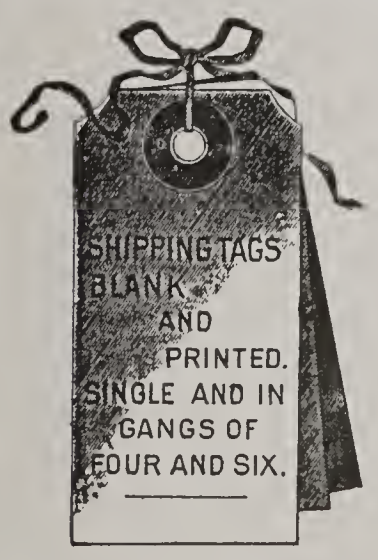
Ornamental Shrubs

HAVE YOU SEEN

AND EXAMINED THE QUALITY AND FINISH OF OUR

Rawhide Brand of Shipping Tags and Tree Labels

PRINTED OR PLAIN, STRUNG OR WIRED?



This stock is especially adapted to the most severe usage, being thoroughly waterproof and weather-proof.

"Once used always used."

Send for samples and prices. Our references are the largest nurserymen in the United States.

The Denney Tag Co.

West Chester, Pennsylvania

ORNAMENTAL

TREES, SHRUBS, VINES, EVERGREENS
HARDY HERBACEOUS PLANTS
225 Acres

Entirely devoted to the growing of the best quality of ornamental nursery stock.

WHOLESALE ONLY

We also grow the "unusual" things, you cannot find elsewhere.

Small Trees and Shrubs for
Planting in Nursery Rows.

We shall have our usual supply for Spring delivery. Catalogue ready January first.

RAFFIA HEADQUARTERS

Supply of our usual brands on hand at all times.

Thomas B. Meehan Co.,
WHOLESALE NURSERYMEN
Dresher, - Penna.

SPECIMEN EVERGREENS

IMMEDIATE SHIPMENT



Arbor Vitae, American, 3 to 4 feet.
" " " 4 to 5 feet.
" " " 5 to 6 feet.
" " Columbia, 2 to 3 feet.
" " Lutea, 3 feet.
" " Pyramidalls, 3 to 4 feet.
" " " 4 to 5 feet.
" " Tom Thumb, 2 feet.
Juniper Irish, 4 to 5 feet.
" Virginiana Glauca, 3 feet.
" " Sinensis, 2 to 3 feet.
" " " 4 to 5 feet.
Retinispora Filifera, 2 to 2½ feet.
" " Aurea, 15 inches broad.
" Obtusa Nana, 12 to 18 inches.
" Squarrosa, 2 to 3 feet.
Spruce, Kosters, 3 to 4 feet.
Boxwood, Pyramids, 3 to 4 feet.
" Standard
Rhododendrons, choice lot.

W. B. COLE, - - Painesville, Ohio

JOHN WATSON & CO.

Newark, New York

AGENTS FOR

F. DELAUNAY,

Angers, France

New Catalogue for Season 1916-1917 is now ready for distribution and will be sent on request. Nurserymen who like good stocks, evenly graded, properly packed, at closest prices and lowest importing expenses, should write us. We will gladly refer to last season's customers. One wrote: "Delaunay's stocks check up more good points in quality, grades and packing, than any others received." This referred to a two-car-load order. Another wrote: "Your importing expenses were the lowest." And this referred to a five-carload order. The combination of Quality, Price and Service that makes Value, is appreciated by buyers. If you want something better, for less, try us. We have shown others; we can show you.

August first, 1916.

EVERGREENS

Seedlings—Transplants

MILLIONS OF THEM

Arbor Vitae—American
Arbor Vitae—Compacta
Arbor Vitae—Douglas Golden
Arbor Vitae—Globosa
Arbor Vitae—Hoveys Golden
Arbor Vitae—Pyramidalis
Arbor Vitae—Siberian
Arbor Vitae—Tom Thumb
Arbor Vitae—Orientalis
Arbor Vitae—Orientalis Aurea
Arbor Vitae—Orientalis Pyr
Austrian Pine
Biota, 3 varieties
Black Hills Spruce
Colorado Blue Spruce
Douglas Spruce
Concolor
Englemans Spruce
Jack Pine
Norway Spruce
Norway Pine
Pinus Mugho
Pinus Flexilis
Pinus Ponderosa
Pitch Pine
Red Cedar
Retinispora, 3 varieties
Swedish Juniper
Scotch Pine
White Pine
White Spruce

Especially attractive prices on large orders

Also a Complete line of Fruit and Ornamental Stock

Sherman Nursery Co.

Charles City, Iowa.

The Best Tree Digger on Earth



Used and Recommended by Leading Nurserymen.

The one we have used for years and by far the most satisfactory of any we have ever seen. It does exactly the work for which it was designed and does it right. If interested we will be glad to send description and prices.

Stark Bros. Nursery & Orchards Co.
LOUISIANA, MO.

THE BEST IN NURSERY PRODUCTS

We carry a full line of fruit and ornamental trees, evergreens, shrubs, etc. Send us your list of wants.

Listed below are some real winners. If what you need is not here, write for our trade list.

15,000 Oriental Planes from 1¼ to 3-inch caliper. A large stock of Sugar Maples, American Elms, Carolina Poplars, Lombardy Poplars, Double Flowering Japan Cherries, Weeping Japan Cherries, Flowering Apples, Flowering Peaches, Magnolia Tripetela, Japan and American Judas, English Walnuts, Japan Walnuts, California Privet, fine, 2 to 3 ft. and 3 to 4 ft.

Apples and Peaches, 10,000 Downing Gooseberries, 2 years, No. 1.

HOOPES, BRO. & THOMAS COMPANY
Established 1853 — West Chester, Pa.
Maple Avenue Nurseries
Philadelphia Office:
222-3-4-5 Stephen Girard Building — 21 South Twelfth Street



P. D. BERRY
Wholesale Nurseryman

is offering for Fall 1916

Black, Red, Purple and Yellow Raspberry, Blackberry, Dewberry, Gooseberry, Currants, Gooseberry rooted layer plants, Rhubarb, Horseradish, Hdyrangea, P. G., California Privets, Barberry Thunbergii, Paeonies, Black Currant Cuttings, Spiraea, fifty thousand Black Currants one and two years, Raspberry transplants, etc.

Quotations furnished by letter.

P. D. BERRY,
Dayton - - Ohio

STRAWBERRY PLANTS

Let us fill your orders for Strawberry Plants

We dig and ship plants anytime from November to May.

Shipments made either to you or direct to your customers. Our plants are hardy everywhere strawberries are grown. Plants strong, vigorous and healthy with an unsurpassed root system.

All plants tied 25 to the bunch and every bunch labeled.

Every Plant Guaranteed ***True to Name***

We have all the best varieties—**Chesapeake**, Dunlap, **Sample, Big Joe**, Klondyke, Aroma, Wm. Belt, Gandy, **Haverland**, and 70 others. Also **Progressive** and Superb, the best everbearing kinds.

New Berry Book and Wholesale list now ready.

Let us fill your orders—You will enjoy the praise our plants will bring you.

THE W. F. ALLEN CO.

100 MARKET ST.
SALISBURY - - - MD.

ENGLISH NURSERY STOCK

GROWN IN LARGE QUANTITIES

RHODODENDRONS a splendid lot this season, fine bushy plants. Plenty of the hardy Catawbiense named varieties suitable for the American climate including the newer and superior kinds.
AZALEAS, ANDROMEDA, KALMIA and other American plants in great variety.
CONIFERS a large stock, of all hardy kinds.
HARDY ORNAMENTAL, EVERGREEN and DECIDUOUS TREES.
ROSES. Dwarfs and Standards in all varieties.
CLEMATIS AND CLIMBING PLANTS.
FRUIT TREES Espalier trained pyramids in quantity.
MANETTI ROSE STOCKS 1 year splendidly rooted from sandy loam, none better imported.
A general assortment of hardy outdoor stock. Glad to answer inquiries.

THIRTY YEARS SUCCESSFUL TRADING IN THE STATES

No Agents. Write direct for wholesale catalogue to

WALTER CHARLES SLOCOCK, Goldsworth Nurseries, Woking Surrey, England

Half an hours rail from London & S. W. Ry.. Main Southampton Line. Cable Slocock Woking. (A. B. C. Code).

"We Raise Our Own Trees"

Evergreens

SEEDLINGS—TRANSPLANTS

Select from our specialized collection of young conifers for every place and purpose. Stock particularly suited for lining out and forest planting. Your order will have personal attention and the price will be right. Send for our catalogue and save money.

Discount to Trade

The North Eastern Forestry Co.
Box E. CHESHIRE, Conn.

V. G.'S VERY GOOD

HARDY NURSERY STOCK SUCH AS
AZALEAS, BUXUS,
CONIFERS, EVERGREENS,
PAEONIES, MAGNOLIAS,
RHODODENDRONS, ROSES, ETC.

Offered by

VAN GELDEREN & CO.

Wholesale Nurseries

Ask for Catalogue — BOSKOOP (Holland)

FAIRFIELD NURSERIES

FRUIT AND SEED FARMS

OFFER *for Fall 1916*

GRAPE VINES—One and two years old. Varieties largely Moore's Early, Concord and Niagara.
Also Scarlet or Crimson Clover Seed and Cow Peas. Free from weed seeds, all recleaned and guaranteed first class.
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The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK

The National Nurseryman Publishing Co., Incorporated

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PRODUCTION, PRICES, SALESMANSHIP AND CREDIT

By George C. Roeding, Fancher Creek Nurseries, Fresno, Cal., Read before the California Nurserymen's Association, October 26th, at Santa Barbara, Cal.

IT is no exaggeration to say that the subject which has been assigned to me is indeed a very broad one. It covers every phase of the nursery business, and to be in a position to elucidate intelligently under each head embraced in the title of this paper would simply mean that I had offered a solution of all the problems confronting the nursery business.

How prominently the word "Success" looms up before us! There is not a single one of us who would not like to ascend the highest pinnacle and after reaching the goal look out on the busy world below, flaunt our banner to the breeze and exultingly declaim—"It is all mine!" How often have we dreamed just such dreams, and how we have had our well-laid plans shattered as we have been tossed around like shuttlecocks in this busy, cold, relentless world in which the survival of the fittest is constantly flaunted before our vision.

I might go on addressing you in this strain, but it would simply mean that old memories, sweet and disastrous, would be revived. Cold facts speak louder than words, and these are what you want now. I am going to consider the subjects in the order in which they have been presented, for each one of them plays an important part in the success or failure of any nursery business.

It is really too bad we are not mind readers, at least to the extent of being in a position to have a fairly good supply of the particular fruit or ornamental which is in great demand in any one season. We are engaged in a commercial business entirely unlike any other in one very important respect, and that is that we are not even in the position to protect ourselves against an unprecedented demand for any particular line, because we cannot grind our stuff out within a period of five or six months to meet the call, but must commence our preparations years in advance and take our chances on what the demand may be. There is absolutely no basis to work upon and from my long years of experience and much thought to this problem there never will be. The business then resolves itself into a great game of chance; there is no precedent to follow, except for the nurseryman to grow a complete line of fruit and ornamentals to protect himself to the extent of keeping up his assortment and depend upon his ability to make purchases, at reasonable figures, of such stock from his competitors that will allow a good margin of profit when retailing to the planter.

In no vocation does the personal equation cut so important a figure as it does in the nursery business. The purchasers of nursery stock are very insistent in their demands to know definitely where the particular stock they want has been grown and also if the same has been raised by the nurseryman with whom they place their order. It is not practical for a nurseryman cataloging a general line of stock to grow everything himself, nevertheless it is almost necessary for him to give a complete history of his products so that he can effect sales in many cases. In this day of pedigreed stock, which in many instances is carried to extremes, it is beyond the ability of a practical nurseryman to comply with all the demands. To particularize on this point is out of the question at this time. I wish to lay stress, however, on one point and that is, where a nurseryman supplies trees true to name and free from pests, the demand that he give, in addition to this, the life history of the trees that he is offering for sale is not possible. I do not wish to convey the idea that care should not be exercised in the selection of buds and scions, for this is important.

As a matter of fact much better trees would be secured if nurserymen would specialize and grow such trees only as are particularly adapted to their soil and climatic conditions. This plan, if followed over a period of years, would result in securing trees from men who, through a steady and increasing demand, would become trained experts. This plan may not seem practical at this time, but eventually this is what the business must drift into. There are great responsibilities attached to the man who grows trees. It is his duty, if he has his business at heart, to be in a position to give those who favor him with their orders intelligent advice as to the best root stock for different soils and honestly recommend to the grower what he should and should not plant. He has a solemn duty to perform and that is, not to forget that the man who buys his wares must wait a period of years before he realizes any return from his trees.

It must never be forgotten that the original cost of the

tree is a very small item as compared with the cost after it has been taken care of in the orchard over a period of years. All of this resolves itself down to the question of dependability of the man engaged in growing trees. He must actually have a fatherly interest, so to say, in the trees he sells, and although this may not now be the view that the purchaser takes of a nurseryman, the standard of the business must be raised to this point. The fruit-growing interests, as they are developing in California, will demand just such a standard. More and more the commercial side of the business is demanding fewer varieties. This is fortunate, for it places the nurseryman in a much better position to make better and more careful selections than it was possible to do in former years. These remarks are more applicable to the fruit department of the business than the ornamentals. for in this line there is going to be a constant and growing demand for not only a greater variety but of the fine types comprising the endless list of species and varieties.

The tendency on the part of the nurserymen to grow larger blocks of trees in anticipation of a great demand, which in many cases is never realized, has been responsible for the wrecking of many a business. A surplus of stock annually, if there is not an active demand, means the cutting of prices to such a figure that many a man who has endeavored to hold up his business following practices which have had the commendation of his colleagues, has lost out because of his inability to even make a partial clean-up, and then only at prices which spelled ruination.

The fickleness of the buying public is realized in almost every business and to overcome this is next to an impossibility. It is disastrous in the nursery business, more so than in any other line, for stock unsold is consigned to the brush pile and the loss is absolute. In the last three years the loss to the nursery interests, in this respect, through the slack demand and the consequent destruction of trees may be safely figured into millions of dollars. Every branch of the business has suffered a severe blow. Now that the fly-by-nights have been eliminated from the fold, those who are legitimately and permanently engaged in the business should not confine themselves to growing immense blocks of trees but rather to a lesser number, and those of the very best quality.

The tendency to grow large blocks of trees is not going to bring about a change in the matter of prices. Plain common sense will indicate this without any explanation on my part. Those who are engaged in the business must have closer trade relations, and this can only be brought about by patronizing one another.

The discounts that have been allowed to the trade in the past have not been sufficient to encourage this. It is essential for the best interests of the business that our present methods be revolutionized. The man in the trade who buys large blocks of trees in good faith from a competitor is placed, so to say in his relation to him, as a jobber, and prices should be made so that in retailing to the planter he will earn a liberal margin over and above the heavy overhead charges embraced in advertising, office expenses, handling, packing, hauling to the depot, paying agent's commission, etc. To make myself entirely clear, the trade must recognize business principles in their relations with each other, and they must find means by which prices to the planters are maintained to a point permitting a legitimate profit.

The selling of an article to the public is a business in itself and the producer should not be called upon to carry this burden. The very exigencies of the nursery business, however, demand that the nurseryman should do this. The smaller nurseries, whose business is of a local nature, do not have to do the advertising, nor do they find it necessary to employ agents, like a nursery whose business extends far beyond the confines of its particular district, or, for that matter, in the State in which it operates.

It is of the utmost importance for a business of this class to issue an annual catalog. This should be made as attractive as possible. Descriptions should be clear and concise and the information contained therein should be accurate and to the point. Good illustrations of varieties which have unusual merit, with a carefully worded description, will do much toward creating a desire in the mind of a purchaser to possess that particular tree or plant. A well-gotten up catalog is an important asset to every nursery business and its value as a silent salesman should never be overlooked. Stock catalogs are absolutely lacking in the personality which is essential to success and they should not be countenanced by any nurseryman.

Does advertising pay? This is a question which is so lacking in tangibility that men in the nursery business approach this subject with much misgiving. They realize their inability to extol their goods and create the desire that they would like to have aroused in the public mind. The judicious use of printers ink is essential to every business. "Big Business," having the actual necessities of life to sell, finds that advertising its goods pays. Experience is a good teacher and we must admit that if this is true in so many lines, we cannot consider ourselves an exception to the rule. So get in line, but in doing so do not depend upon yourself to write your ads., but instead engage the services of an experienced "Ad Man" who, if he understands his business, can counsel you in many ways outside of the ads which he actually prepares for you. A good advertising agent is worth all the commission he receives from the publisher if he conscientiously directs your advertising campaign.

It is a matter of policy with a firm as to the necessity of having agents to sell nursery stock. My view of it is that an agent who applies himself and keeps his firm posted as to what is taking place in his particular locality, and is at the same time keeping a line on prospective purchasers, plays an important part in any extensive nursery business. It is not to be expected that a new man will immediately book big business. However, if he shows an aptitude for the work his ability to secure business will very often depend on the methods followed by the firm in whose employ he is to retain his interest in seeing that he is well repaid for his efforts. He should be acquainted by bulletins, from time to time, as to the working conditions of the business he represents. Proper interest should be manifested in helping him secure orders. It is very often necessary to write personal letters to his prospects to influence them to place their business with him. Many people cannot be reached in any other

way, therefore the agent is a factor and is just one more medium through which business is secured.

There is not an experienced business man who will not admit, when the question of credits is put up to him, that slackness in this respect is directly responsible for the wrecking of more businesses than possibly any other one cause. There is not a nurseryman who does not realize the seriousness of this one subject in the conduct of his business, and all of us are convinced that radical changes are necessary in this direction to make the business possible.

Before approaching the subject of handling credits with regular customers it will do no harm to view our own relative positions. It is useless for us to close our eyes to that which is obvious to every man in the business, and that is that we must commence ourselves and adopt practices which will improve confidence in our ability to pay. We must necessarily patronize one another and in making purchases our ability to pay when the account falls due should be above question. The retail price should be maintained at all hazards, for unless it is, the trade arrangements between competitors are disturbed to such an extent that they become deranged, and the competitor having a surplus refuses to sell his stock for fear that prices will be cut.

The financial position of the firms permanently engaged in the business must be improved at all hazards. A different understanding as to when trade accounts are to be settled should be arrived at, and if it is not possible to pay the account when it is due then, in that event, interest should accrue from the due date and a note should be given for the obligation. No offense should be taken by the debtor when he is required to pay interest on his overdue account. Prompt payments among ourselves will go a long way toward compelling us to demand quick settlements from our customers. Slackness in the matter of collections means ultimate ruin. There is no use denying the fact that the short period for selling nursery stock and the tremendous pressure under which business must be transacted, makes it very difficult indeed, except by a most rigid system, to overcome the losses which are, so to say, the natural sequences of every nurseryman whose business dealings extend over a wide territory. Agents should be given to understand that prompt collections are imperative. Promptness in the settling of nursery accounts should stand out like the "Rock of Gibraltar," for it spells either success or failure.

In conclusion, allow me to say that I trust in this paper I have presented a few thoughts for your careful reflection. I realize the subject is a difficult one to handle and that it is impossible to cover all the ground completely in a paper like this, except to the extent of calling attention to the salient features that arise in our business relations.

According to Consul General Francis B. Keene, Zurich, Switzerland, there has been a decline in the production of grapes amounting to 56 per cent. in the acreage and a loss of 72 per cent. in the value of the crop from 1881 to 1914.

This is due (1) to the ravages of the grape louse *Phylloera vastatrix,* grape mildew, *Uncenula spiralis,* and other grape pests during the dry years, and (2) to hail damages, etc., during the wet years.

Experiments have been made using the improved American vines as stocks which have proven very satisfactory, and are being recommended not only in places where the grape vines have been pulled up, because the grape vines were infested by the grape louse but all new plantings in general, so there is likely to be a demand for American stocks.

SCRATCH YOUR HEAD AND THINK

By George W. Ottinger.

Do you consider your fall season's business profitable and satisfactory? If not, why? If it was, why? Where did you fall down and where did you make good? Is the expenditure side too big or too little? Whoever heard of expenditures being too small? Let us analyze what goes into expenditures. Stock—did you buy sufficiently and intelligently to cover the wants of your patrons and was that stock of such high quality as to secure you against loss? Labor—did you spend sufficient for labor that your place might be kept in the highest state of cultivation so as to produce the maximum in quality and growth? Fertilizer—did you manure heavily enough that next season will find the soil in good productive condition? Packing and Delivery—Did you spend sufficiently on materials and labor that your stock reached your customer in excellent condition and avoided complaints from this source? Advertising—Did you spend enough to let the buying public know what you had to sell and why they should buy from you? Office—Did you spend sufficient on clerical work that your bills, letters, etc., went out promptly and neatly and thus impress your customers of your business ability and up-to-dateness?

Did you sell too much? Who ever sold too much? Well how about stock that is in demand and always sells, did you put a large amount of effort into sales of this class and thus deplete your staples and leave on your hands stock you wanted to get rid of? Did you produce 20 per cent. increase over normal sales by increasing your advertising expense 50 per cent.? Did your increase in sales increase your labor out of proportion? Did the handling of your increase in sales so flood your office that it caused you to abnormally increase your clerical force?

Now the gist of the matter is this, the expense account is severely pared and the result is production and selling is greatly impaired. Then on the other hand.—Sales are increased, desirable staples sold out and other expenses mount up out of proportion to what they would be under normal selling effort and sales. We might put it this way,—spend too little and get less, get too much and spend more.

THE NEED OF ORGANIZED KNOWLEDGE IN THE NURSERY BUSINESS

THE big problem before the National Association of Nurserymen, in fact all nurserymen, is the one of co-operation so that production may be regulated to prevent over-production and waste and stimulate the production in those lines where there is a shortage. In other words to foster and guide the business in the way it should go.

Mr. Watson, the president of the Association had this in mind when he talked about statistics at the Milwaukee Convention, and as he pointed out, the first essential is to get together data or statistics that will give an idea of the situation in general.

If the total of the whole supply is known, prices would be more intelligently fixed.

It is merely following the government's lead in its crop reports of wheat, cotton, corn, etc.

It is not likely the German plan will appeal to the average American, but it is worth reading and careful thought and is pregnant with suggestions along the lines which must be followed, if our business is to be placed upon a modern and sound economic basis.

Arbitrary price fixing is not what is wanted, but a regulation of the supply so the nurseryman will get better returns for his investment and labor.

The present loose, unorganized conditions are criminal in their waste and tends to breed unmoral business ethies.

THE "GERMAN IDEA" OF GOVERNMENT'S RELATION TO INDUSTRY

Germany is, in a sense, a land of co-operation imposed by Government fiat. Such a country could not tolerate the idea of production running riot, which at certain epochs becomes the outstanding characteristic of big industries in countries that maintain a greater theoretical and practical democracy than does Germany, in the manner in which they foster business competition.

The kartell is often confused by American readers with the trust, which is a combination under the masterful control of one powerful business talent, or, at most, of a powerful financial group, with the primary object of destroying or of driving out of business all competitors in the same field; but in almost every case the history of a German kartell will show that it was founded in some period of industrial or financial depression with the purpose of resisting the lowering of prices and the over-production of commodities. In a few cases, however, there were formations of preventive kartells, that is, of kartells established not during a period of bad business, but in anticipation of such a period, in order, if possible, to forestall it; but such cases are quite rare in Germany.

The kartell usually has the legal status of a stock corporation, is one, in fact. Its object is the cooperative sale of a certain product. For the attainment of this object two methods are pursued: either through a sales bureau (Verkaufsbureau) under central control, or through direct sales, which are also, however, under the central control. The Verkaufsbureau fixes prices; all the products of its associates pass through its hands; it distributes the orders among the affiliated factories in accordance with their capacity; all publicity work is performed by it, as well as all necessary negotiations with customers. This seems the simplest solution of the sales problem, yet it is by no means master of the field in the administration of the German kartell. As above indicated, in many of them the executive board fixes the prices, leaving to each producer the task of finding his own market, but limiting, in some manner, the total of his output, or restricting his sales to a certain geographical district.

The entire system would be broken up if any of the manufacturers, thus left to themselves, should yield to the temptation of securing a large order by asking a lower price than that agreed upon, or of achieving a more efficient utilization of their plants by manufacturing for sales outside their own districts. It was therefore necessary to establish a rigorous system of supervision; "active, intelligent and more or less pugnacious" inspectors have a right, at any moment, to make whatever verification they like, inspecting the books, the correspondence, the manufacturing end, or the stocks carried, of any firm in the combine. Punishments, in the event that frauds are detected, are severe. Affiliated companies are required to deposit with the executive board drafts accepted by them, which are presented at the proper banks if any fine that has been incurred is not paid at once. When there is a sales bureau the thing is easier still to regulate; in that case the amount of the fine is simply charged to the delinquent firm, and thus subtracted from the amount accruing from its sales.

The essential point about any kartell is that it fixes the price for all the firms in it, and this applies with equal force to both the sales bureau method and to that of separate sales with central supervision. In either case the object attained is the exclusion of cut-throat competition by the general acceptance of a reasonable price at which to sell products.

One result of this prime characteristic of the kartell is that it is impossible to form a kartell unless you have succeeded in making at least 90 per cent. of the productive agencies in your field join the organization. In fact, it is desirable that even a greater proportion than that be inside the movement. For a long time it was impossible to get up a kartell for sugar refining in Germany, for it was first necessary to include the large number of sugar producers who dealt not in refined sugar but in crude sugar, much of which in those days went directly to consumers without passing through the process of refinement; and it was just these small producers who were hardest to convert to the advantages of a broader organization of industry, owing to their ingrained prejudices against anything that was large and strong and capable, and to their distrust of the financial classes.

Another characteristic resulting from the very nature of the kartell is this: the kartell is feasible only if the product to be sold is rather uniform in quality; only if quality and prices, in other words, can be made practically the same for the various affiliated companies. In a word, the establishment of a kartell depends on the possibility of setting up a fixed scale of prices. This is the case with coal, with smelted metals, half crude steels, sheet metals, wires, needles, pins, &c.; but once your product is variable instead of uniform, once its selling price depends considerably on virtures imparted by peculiar and little known modes of manufacture, it at once becomes impossible to set up a scale of prices and the formation of a kartell is out of the question. A good example of the difficulties attending the founding of a kartell under these circumstances is that of the textile trade: while the cotton spinners were able to enter into a kartell, the weavers could not do so because their output is too varied in character, and because, being subject to the fickle demands of fashion, it is not possible to establish a fixed scale of prices.

The selling price is fixed by the executive board, which, owing to the ease with which the unanimous consent of the companies is obtained and owing also to the German protective tariff, has no difficulty in maintaining a sufficiently remunerative price in the home market.

Overproduction is one of the most effective methods of forcing down the selling price of an article. Therefore whenever a market presents indications of extreme stability of price each manufacturer will attempt to steal a march on the others by overproducing. He thus increases the unit of profit, that is, the profit on each article turned out, but he also increases the number of articles turned out, and it is the product of these two factors that constitutes his total profit. But if all the manufacturers are doing this, and if consumption does not simultaneously expand, a point will be reached where there is a superabundance of the article in question. A crisis is set up, in which the immediate danger is the lowering of the price of the article, a condition which the kartell opposes, as we have seen, by decreeing the maintenance of a certain price. But if the kartell stopped at that the excess of production over consumption would increase and the danger would be merely postponed and aggravated. In order to protect the industry completely the kartell must regulate production and make effort to stimulate exportation. Accordingly the executive board fixes each year the amount that each concern may manufacture.

A Frenchman or an Englishman might object to this method, which deprives the manufacturer of a certain part of the control of his own business. But the German believes that voluntary collective initiative is superior to individual initiative. Besides it must not be forgotten that to limit the output does not interfere with the internal autonomy of the industry, and that the manufacturer remains the master of his mode of production, for the kartell does not pool the methods of work; each associate retains his private ownership of his patents, not being obliged to share them with his fellows.

The matter of fixing how much each is to manufacture is not without its difficulties. Theoretically, each firm is favored in accordance with its productive capacity, but this a very elastic measure. In practice, all compete for allotments of orders, and settlements are only made after elaborate mutual concessions and accommodations.

But the burden of this limitation is very largely compensated by the consequences of the policy of exportation which the German kartells have been so energetically pursuing for the last thirty years. Riesser says: "It is a policy born of necessity." You cannot limit the output of an entire industry with impunity, for you run the risk of thus forcing up the selling price to enormous heights. You are therefore obliged, willy-nilly, to overproduce. An amount equal to the consumption within the national borders is reserved for the home market, at the advantageous price which the kartell, aided by a strong protective tariff, maintains for Germany; the rest is injected into the foreign market, where it is disposed of at any risk, for a profit, or for cost, or at a loss. This process of "dumping" manufactures has recently been resorted to by Germans on a gigantic scale, and has succeeded in some foreign markets, notably in France, in discouraging native competition to such an extent that the superstition has become quite current that to attempt to compete with the Germans commercially is an absolute impossibility, at least in certain commodities.

It took the commercal middle classes of Germany a long time to find out that they had better look into the matter of their high prices at home while they were permitting the manufacturers to sell cheap to foreigners, but about 1900 a rather strong feeling against the kartells began to culminate. In order to make some concessions to public opinion the Imperial Government, toward the end of 1902, appointed an investigating committee to determine what influence the kartells had had in bringing about the recent crisis in the metallurgical industries. The commission's findngs included a statement that the crisis would have been worse had it not been for the existence of the kartells, and while there cannot be any doubt that the commission had studied the problems honestly, its findings must have been welcome to those in authority in the commercial world.

The social consequences of the kartell are not the least of its many interesting features. By regulating production and sales they contribute to the maintenance of public order and to a proper collection of taxes, developing, at the same time, the strength of the national industries. Doubtless the Imperial Government has not failed to recognize these points, for it has always favored the establishment of kartells, to which it has, on a number of occasions, given its official sanction. Two instances of such Government sanction will serve as illustrations: one was the authorization issued to the fiscal (national) manufacturers to join the kartells; the other was the imperial law of May, 25, 1910, which imposed the kartell organization on an entire industry, namely, the potash industry.

JACOB WITTMER HARTMANN, Ph. D.,
Professor at the College of the City of New York.

—New York Times.

SPRUCES AND OTHER PLANTS FOUND AT THE ARNOLD ARBORETUM

THE PINETUM. After two seasons of abundant rain the conifers are in good condition this autumn, and the Pinetum is now perhaps the most interesting part of the Arboretum to visit. At one time or another every conifer which had any chance of surviving has been tried in the Arboretum, and some useful information on the value of the different exotic and Ameriean species, with the exeeption of the new introduetions from China, as ornamental trees in this elimate has been obtained from the Arboretum experiments. Considering how generally unfavorable the New England elimate is for trees of this class, the large number that suceeed here is surprising, although it must be remembered that in this elimate many eonifers, especially Spruces and Firs, are often at their best when not more than forty or fifty years old and that as they grow older they gradually fail and lose their value as ornamental trees. This is true of the so-ealled Colorado Blue Spruee (*Picea pungens*), which is still one of the most popular conifers in the northern United States, where it is propagated and planted in immense numbers, in spite of the faet that it early loses its value as an ornamental tree. The Blue Spruee is very hardy, is easily raised and grows rapidly; young plants are of good shape and dense habit with their lower branches resting on the ground. There are two forms, one with dull green and the other with blue leaves, and the latter especially appeals to persons who are fond of unusual looking and sensational plants. For the nurseryman the Blue Spruce has everything to recommend it, easy germination of the seed, quick growth and unusual beauty in the young plants, and therefore a eertainty of a quick sale. For the planter looking for something more important than a plant for a city garden or a small suburban yard, this tree has proved a failure. It is not surprising for *Picea pungens*, growing in small groves near streams in the valleys of the Rocky Mountains of Colorado, long before it attains its full size is a thin, scrawny, miserable looking tree with a few short branches only near the top of the stem. This tree was discovered in 1862: seed was planted the following year in the Harvard Botanic Garden, and one of the plants raised at that time is still alive in the Arboretum on the southern slope of Bussey Hill where it is kept as a warning for planters who are deceived by the beauty of young plants of the Blue Spruee.

PICEA ENGELMANNII. This tree as it grows nearly up to the timber line of the central Rocky Mountains, where

it onee formed great forests, is one of the handsomest of the Spruces with its narrow spire-like crown, soft gray-green foliage and tall trunk covered with bright red sealy bark. It was also discovered in 1862 and what are probably the largest specimens in cultivation are in the Arboretum Pinetum. Until two or three years ago these were narrow, perfect pyramids with the lower branches resting on the ground; then the lower branches began to die gradually without apparent cause. This has continued, and the stems of some of the trees are now bare of branches for six or eight feet from the ground, and their beauty as specimen trees is ruined.

Picea canadensis. This, the White Spruce of British North America, is a very hardy, fast-growing tree here, and is one of the handsomest of the Spruces which can be grown in this region; but the climate of eastern Massachusetts is evidently too warm for it and after it is thirty or forty years old it becomes thin and unsightly.

Picea rubra. This is the Appalachian timber Spruce and retains here its beauty longer than the White Spruce, for it is a native of Massachusetts and ranges southward along the mountains to the high Carolina peaks. It is a handsome tree with dark green leaves, but it probably grows more slowly than any other large coniferous tree, and it is not easy to establish. For these reasons it will probably never be a favorite tree with nurserymen.

Picea omorika and P. orientalis. These are handsome and hardy trees, the former a native of the Balkan peninsula, and the latter of the Caucasus. No weakness has yet been found here in these trees except that they too often lose their leaders from the attacks of the borer which so often destroys the leaders of the White Pine.

Picea Glehnii. What the future may have in store for this tree here, which is a native of northern Japan and Saghalien, no one can predict as it has been in cultivation in the Arboretum for only twenty-two years. The trees now grow rapidly, are perfectly hardy and show no signs of failure of any sort. The best specimens here are now about eighteen feet high.

Picea jezoensis. This is the most widely distributed of the species of eastern Asia: ranging as it does from the Amoor region to Manchuria, Korea, and to northern and central Japan. This is the only Spruce in all that region with flat leaves like those of *P. omorika* and *P. sitchensis* of our northwest coast. It has been sometimes called *Picea ajanensis*, *P. microsperma* and *P. hondoensis*. In Great Britain, where it is usually incorrectly called *Picea Alcockiana*, it grows remarkably well and has been recommended as a timber tree for forest planting. In a collection of exotic trees made in 1870 by Dr. George R. Hall in Warren, Rhode Island, there is a specimen of this tree from sixty to seventy feet high with a trunk forty-six and a half inches in diameter and branches spreading on the ground. In this Arboretum and in the Hunnewell Pinetum at Wellesley this tree has grown badly, losing many of its branches and soon becoming unsightly.

Picea bicolor. This is one of the rarest of the Japanese conifers, and as it grows in the Hunnewell Pinetum it is now the handsomest of all the Spruce trees which can be grown in this climate. Mr. Hunnewell's trees are now about forty feet high with the lower branches resting on the ground and covering a space from thirty-five to forty feet across and with perfectly straight stems. This beautiful tree is probably better known by its incorrect name of *Picea Alcockiana*. It is one of the rarest of the Japanese conifers in cultivation and it is to be regretted there are no good specimens now in this Arboretum.

Picea Abies. This unfortunately is the correct name for the so-called Norway Spruce of Europe which has generally been known as *Picea excelsa*. Fifty or sixty years ago this tree was very generally planted in southern New England where it has not proved a success as an ornamental tree as it begins to fail at the top when about thirty years old and then soon becomes ragged and unsightly. In some parts of Virginia and in the Middle States this is a better tree than it is in Massachusetts. In the National Cemetery at Gettysburg in Pennsylvania, there are magnificent specimens of the Norway Spruce in as perfect health and beauty as can be found anywhere.

Firs. The number of Fir trees that can be successfully grown in this climate for many years is not large. One of the handsomest here is the White Fir of western North America, *Abies concolor*. There are fine specimens of this beautiful tree in the Arboretum raised here from seed planted in 1874 and now about sixty feet high, with the lower branches resting on the ground, and solid masses of gray-green foliage. As handsome and as promising in this climate is the Japanese *Abies homolepis*, or, as it has been more often called, *Abies brachyphylla*. This is a large tree on the mountains of central Japan with dark green leaves silvery white on the lower surface and violet-purple cones. It has proved perfectly hardy in this climate. The largest specimen in the Hunnewell Pinetum is now fifty-five feet high with branches sweeping the ground. The Arboretum trees are smaller but already produce their handsome cones. A variety of this tree, (var. *umbellata*) with green cones and rather lighter-colored leaves is established in the Arboretum where it has grown rapidly, the largest specimen raised from seeds planted in 1891 being thirty-five feet high. *Abies cilicica* from Asia Minor and *A. cephalonica* from southeastern Europe are hardy trees in the Arboretum and now promise to grow here to a large size. *Abies Veitchii* from Japan is still a handsome tree in the Arboretum but it is doubtful if it carries its beauty to old age. *A. amabilis* and *A. grandis* from northeastern North America are handsome young trees here, and *A. nobilis* from the same region just keeps alive here as a nearly prostrate shrub, although in Methuen, in the extreme northern part of this state, there are handsome and healthy specimens of this Fir nearly thirty feet high.

Pines. Among exotic Pines the three Japanese species, *Pinus parviflora*, *P. Thunbergii* and *P. densiflora*, have all grown well here in this climate for nearly thirty years and are still handsome and attractive trees of much promise. The Scotch Pine (*Pinus sylvestris*) and the Austrian Pine (*P. nigra*) are perfectly hardy and grow rapidly in this climate, but they are comparatively short lived trees here and do not promise to be so valuable as the Japanese species. The White Pine of the Balkan peninsula (*Pinus peuce*) is very hardy here, producing its cones freely, and now promises to be a large and valuable tree. The Swiss Pine (*P. cembra*) is hardy but grows very slowly but it is possible that the form of this tree from central Siberia may prove more successful in

this elimate. The Asiatic representative of this Pine, *Pinus koraiensis,* from eastern Siberia, Korea and Japan, grows well here and produees its cones freely. Of the Pines of western America *Pinus flexilis* of the Rocky Mountain region grows slowly in the Arboretum but is healthy and perfeetly hardy, as are the two White Pines, *P. Lambertiana,* the great Sugar Pine of California and Oregon, and *P. monticola* which ranges from Idaho to the coast of British Columbia and to the high Sierras of California.

PROFESSOR J. G. SANDERS A GUEST OF THE PENNSYLVANIA NURSERYMEN

The Pennsylvania Nurserymen's Association gave a dinner at the Hotel Adelphia, Philadelphia, November



Professor J. G. Sanders

22nd, in honor of Professor J. G. Sanders, the recently appointed Economic Zoologist, to the state of Penna.

Both the nurserymen and Professor Sanders are to be congratulated on the existance of the kind of spirit that prompted the idea, and so successfully earried out the junction. The old idea that the "Bug Men" are antagonistic to the nursery interests was born of ignorance, and is rapidly giving way to a broader spirit and mutual understanding.

The dinner was a very enjoyable one, due largely to the able management of Thomas B. Meehan, who had been delegated by the association to look after things.

A letter from the Seeretary of Agrieulture of Pennsylvania was received expressing deep regret at being unable to attend.

The following were present: Prof. J. G. Sanders, guest of honor; William Warner Harper, Andorra Nurseries, Andorra, Pa., president; Henry T. Moon, Morrisville, Pa., secretary; Thomas Rakestraw, Rakestraw & Pyle Co., Kennet Square, Pa., treasurer; Edwin W. Thomas and Charles L. Thomas, Joseph W. Thomas & Sons, King of Prussia, Pa.; Adolf Muller, De Kalb Nurseries, Norristown, Pa.; R. S. Worthington, William H. Moon Co., Morrisville, Pa.; C. C. Colburn, Andorra Nurseries, Pa.; F. T. McDonald, Rakestraw & Pyle Co., Kennet Square, Pa.; J. W. Root, Root & Bro., Manheim, Pa.; Ernest Hemming, Thomas Meehan & Sons, Germantown, Pa.; Wilmer W. Hoopes, Hoopes Bro. & Thomas, West Chester, Pa.; B. H. Farr, Mr. Bowman, Wyomissing Nursery Co., Wyomissing, Pa.; A. E. Wohlert, J. Russell Bebler, The Garden Nurseries, Narberth, Pa.; Robert Pyle, Conard & Jones Co., West Grove, Pa.; George Achelis, The Morris Nurseries, West Chester, Pa.; Albert F. Meehan, Thomas B. Meehan Co., Dresher, Pa.; James Krewson, James Krewson & Sons, Cheltenham, Pa.

After a very enjoyable dinner, Prof. Sanders spoke of the aims and object of his work and office and expressed the hope that the Pennsylvania certificate would ultimately be a badge of merit.

He also spoke of the White Pine Blister Rust and the plans outlined at the recent meeting in Albany, N. Y., to prevent its spread, and did much to convince the nurserymen of the grave danger and necessity of drastic measures.

That Prof. Sanders has the nurserymen with him, was proven by the unanimous resolution to support him in his efforts to establish an absolute quarantine on the movement of chestnut stock on account of the Chestnut Blight.

EFFORTS TO STOP DUMPING NURSERY STOCK AT AUCTION

Mr. Jos. Lunnemann, with Kallen & Lunnemann, of Boskoop, Holland, has just arrived from Europe and tells us, that the protective Association of Holland Nurserymen, in one of their last meetings agreed not to send direct or indireet any nursery stock to sell at auction, either in the U. S. A. or Canada. Disregard of the agreement makes one subject to heavy fine and members not willing to sign the agreement will have membership annulled. The list with names of firms having signed the agreement is to be published in all trade papers in this country and Canada and when importers on this side co-operate with the movement initiated by the Holland nurserymen, an important step in the right direction will have been taken.

"We would advertise in your paper if we had enough trees to offer in surplus. We grow apple and peach trees in large quantities. We plant from 700,000 to 1,000,000 of apple each year, but at this time we are sold up."

THE GOLD NURSERY CO., Mason City, Mason Co., W. Va.

The National Nurseryman

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Editor .....ERNEST HEMMING, Flourtown, Pa.

The leading trade journal issued for Growers and Dealers in Nursery Stocks of all kinds. It circulates throughout the United States, Canada and Europe.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900

SUBSCRIPTION RATES

One Year in Advance $1.50
Foreign Subscriptions, in advance $2.00
Six Months $1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested by the Business Manager, Hatboro, Pa.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Photographs and news notes of interest to nurserymen should be addressed, Editor, Flourtown, Pa., and should be mailed to arrive not later than the 25th of the month.

Entered as second-class matter June 22, 1916, at the post office at Hatboro, Pennsylrania, under the Act of March 3, 1879.

Hatboro, Pa., December 1916

The Editor takes this opportunity to thank the readers and patrons of the National Nurseryman for their indulgence and support during the past year, and heartily wishes every one a Merry Christmas.

PLANT QUARANTINE

It is a pretty safe propheey that before very long a quarantine will be in operation against all plants from foreign countries.

However garbled the press reports may have been coneerning the meeting in Albany of the offieers of the State and Federal Agrieultural Department to eonsider ways and means to prevent the spread of the White Pine Blister Rust. It is a well known faet most Entomologists favor the adoption of a federal plant quarantine.

Dr. Marlat, chairman of the Federal Horticultural Board praetically served notice on the nurserymen several years ago that sueh a quarantine was under eonsideration and it would only be a question of time when it would be put into effeet.

The advent of the Chestnut Blight and the White Pine Blister Rust, the latter disease having been introduced on nursery stock from Germany has no doubt brought the subjeet to the fore in the minds of the entomologists and they are practically sure to agitate the adoption of such a measure.

Whatever may be the opinion of the nurserymen either individually or eolleetively as to the necessity of such a quarantine or the probability of its being put into effeet, it would be wisdom to prepare for such a eontingeney. Plants are not grown in a year and in many lines it will take generations before this eountry will be able to train propagators and growers that will be able to produce stoek such as is now imported.

THE FUTURE

Present conditions have no precedent and it is very difficult to forecast for the future. The great war has disturbed the trade of the whole world and, while we are not in it, its effects are felt very acutely in many ways; soaring prices, scarcity of labor are causing readjustments along many lines.

In some centers and lines boom conditions exist, while in others things are very dull and flat, but everywhere there is a feeling of uncertainty about the future.

Among nurserymen the fruit tree growers are somewhat pessimistic, while the ornamental growers all report increasing business and greater demand.

Regardless of what the future threatens, whether it be wars, labor troubles, political upheavals, tariffs, quarantines or any other disturbing thing, the fundamental fact remains, we are a vast developing country, containing over 100,000,000 people, mostly speaking one language and forming one nation that is new and has just passed through the construction period. When towns have sprung up in a decade, many are wealthy and beginning to demand the refinements of life in the way of better surroundings.

There is scareely a town of any size that is not beginning to take a little pride in its streets, parks and gardens. There are vast fields of enterprise open to discovery in growing eeonomic plants, unknown and untried fruits to be developed.

If we measure the future by the past, the next twenty years should see the nursery business develop to enormous proportions along new ideas and with new methods.

DRUG PLANTS

The Department of Agriculture at Washington has issued a circular letter cautioning those who are going into the business of growing drugs. Since the importation of these plants and their products have been discontinued, owing to the war, there has naturally been a great rise in priee and a shortage of many kinds and lots of inexperieneed people think they can go into the business and make a fortune. It would be far better for them if they would stick to the growing of staple crops. They are sure of a market for the sweet corn and sueh like, but the drug business is very uncertain and no one should attempt it unless he is thoroughly experienced. There is however no reason why the nurseryman should not grow a crop if he has the facilities for doing so. It may be that some nurseryman may be situated that he would make a good success of *Hydrastis canadensis* or Yellow Root, *Aconitum napellus*, *Digitalis purpurea* or some of the staple drugs, especially if he could arrange for their disposal in advance of growing the crop.

The Western Association of Nurserymen has designated Mr. F. H. Stannard, Ottawa, Kansas, to confer with the Executive Committee of the National Assoeiation.

This is aeeording to the resolution passed at the last convention, requesting each sectional trade organization to appoint a member for that purpose.

SHALL THE CONSUMER BUY HIS NURSERY STOCK AT WHOLESALE PRICES?

Agawam, Mass., November 6, 1916.

"National Nurseryman,"
Flourtown, Pa.

Gentlemen:

We have been reading with considerable interest, the articles that have appeared recently in the National Nurseryman relating to the forming of a retail nurseryman's association and to the practice of certain wholesale nursery firms of sending out their wholesale lists indiscriminately to planters as well as to dealers.

We wish to state that we approve most emphatically of the stand taken by Mr. Cashman in his address and with the writers of the various letters endorsing his ideas. It is our own practice, as far as possible, to buy only from firms that make a very decided difference between their wholesale and retail prices and that do not send wholesale lists to the ordinary planter or retail customer and we intend to be still more careful in that respect in the future.

In our opinion, not only should the wholesale firm restrict its wholesale price lists to those who are in the nursery business, but there should also be a very substantial difference in price between the wholesale and retail lists that they issue.

At a meeting of the Connecticut Nurserymen's Association a few years ago, a member suggested that it would be a good plan to buy only of firms whose retail prices were not less than double the wholesale and, considering the expense of handling, selling, and frequently replacing the stock so purchased, that difference is certainly little enough to protect the retailer.

We recently received what purported to be a wholesale list from a large nursery firm with a little slip inserted saying that we were one of a number of firms that had been selected to whom they would allow a 20 per cent. discount in the prices on that list, except on certain items on which they could allow but a 5 per cent. discount with, of course, the usual packing charges. While this was called a wholesale list, it was evidently sent out to everyone and the prices, for the most part, were retail catalogue prices. There were frequent notes calling attention to the fact that at these prices, the stock was packed and delivered f. o. b. at their shipping station. What does a 20 per cent. discount or a 5 per cent. discount with packing charges added, amount to in such a case? It is very certain that we shall not send any orders to that firm unless we find it impossible to obtain some of the items elsewhere and that is not likely to be the case.

We are in favor of a retail nurseryman's association which shall unite for reasonable prices, honest dealings and the purchase of stock only from wholesale firms that protect their wholesale customers.

Yours respectfully, C. W. Atwater & Son.

A letter from Mr. George W. Strand, of Strand's Nursery, Taylor's Falls, Minn., states that on September 30th fire destroyed the storage and packing house, together with tools and supplies. The loss was $3500.00, which was partially covered by insurance.

A REVIEW OF THE TREE AND FRUIT SEED CROP OF 1916

By Thomas J. Lane, Tree Seedsman, Dresher, Pa.

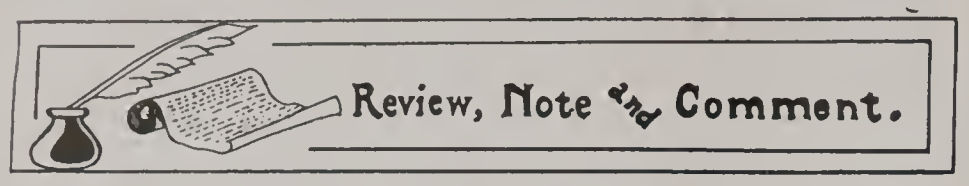
For many years I have been handling tree and fruit seeds and while every year there are some total failures and shortages of certain varieties, I do not remember of any one year in which there were so many failures and shortages of so many varieties as this year. In this country, I believe most of the shortage and failures have been caused by the exceptionally dry season we have just passed through. Conditions were not right for seed. Take for instance White Pine, which usually gives a good crop, this year I find to be very scarce and with the exception of a few localities it is an entire failure. Hemlock Spruce seed is also almost a complete failure. There will be very little of this seed collected this year. California Douglas Spruce is very scarce and in many places a complete failure. Sugar Maple seed all over this country and Canada is a failure. No crop at all. American White Ash seed is also very scarce. This seed seems as though it did not properly mature as it blew off much earlier than usual which denotes a lack of vitality in the seed. Balsam Fir seed I have been unable to get at all. *Abies Grandis* is also very scarce. *Pinus resinosa* is exceptionally scarce and in fact, I could continue to name many more varieties that are either a complete failure or very scarce and the difficulty of getting together the different seeds to fill orders is very great. Those who do not receive the full amount of their orders will know that it is on account of the poor seed crop.

Taking the fruit seeds, most of which are imported from Europe, I would say that the crop of Mahaleb Cherry and Myrobolan Plum seeds were quite good and I received a nice lot of them, but the difficulties experienced in getting the seed collected and shipped together with the many uncertainties of shipping across the ocean at this time makes the seed quite expensive. Mahaleb seed came through in pretty good time but Myrobolan Plum seed was very much delayed.

French Crab seed I understand from reports received from France, is very scarce and in view of the scarcity of the seed together with the difficulty of getting enough labor to collect it, owing to conditions in that country at the present time, the price is exceptionally high and even at the high price I do not believe there will be enough obtained to fill the orders on hand.

My collectors tell me that the crop of French Pear seed is almost an entire failure and do not give me much assurance of being able to procure any of the seed for me and it is also exceptionally high in price.

Keiffer Pear seed is a good crop. There is quite a lot of this seed of good quality. Also, Japan Pear seed.



Felix & Dykhuis, Boskoop, Holland, are distributing a trade list that is quite out of the ordinary. It lists a splendid lot of stock, is well gotten up and is really a valuable handbook for the nurseryman on account of the full lists with descriptions of many lines such as pæonies, roscs, etc. It indicates a business fully up with the times.

A letter from Wick Hathaway, Madison, Ohio, states that he is so busy that he does not even have time to change his advertisement in The National Nurseryman. Like many other localities he is having the biggest fall business he has ever had.

W. E. Campbell, of The Elm City Nursery Company, New Haven, Connecticut, characteristically described the conditions in many nurseries in the east when they are located in the vicinity of large cities or near manufacturing centers.

"We have had to leave the office, doff our coats and hats and go to work, which has been rather trying on the physical constitution of one who has not done any active nursery work for a number of years, but we believe we have been repaid in increased appetite, built up muscles, and greatly extended lung capacity."

Mr. Walter F. Webb, 202 Westminster Road, Rochester, N. Y., has severed his connections with the First National Nurserics, Herrick Seed Company and Brown Brothers Company, with all of whom he has been actively associated as an officer for many years and intends to start a new Company under the name of the Guaranty Nursery Company.

The American Peony Society has issued its Bulletin of Peony News No. 3, together with the proceedings of the Society for 1916.

Those interested in Peonies will find a symposium of the newer foreign varieties, which is practically a ballot, showing the opinions of 19 members who have grown them and voted upon them.

Copies of the Bulletin may be had by applying to the Secretary, Mr. A. P. Saunders, Clinton, N. Y.

A new idea connected with horticultural catalogues is in operation on the West Coast. It is in the shape of Bulletins issued monthly under the name of "Horticultural Catalogue Service" and claims to be an independent catalogue, not controlled by any nurserymen or collection of nurseries.

It lists free ten items from any nurseryman alphabetically arranged and depends on separate advertisements for its financial success.

Investigation of Rose Diseases

By Dr. L. M. Massey, Specialist on Rose Disease Investigations, Department of Plant Pathology at Cornell University

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A SPECIAL and extensive investigation of the diseases of roses has been undertaken by the department of Plant Pathology, Cornell University. This work, which was begun August 1, 1916, is being conducted in co-operation with the American Rose Society, whose members have contributed towards the financial support of the undertaking.

During the past three months much time has been spent in visiting rose plantings in northeastern United States, making a survey of diseases. The gardens and greenhouses of some thirty-five rose growers have been visited. The number and extent of the diseases present have been noted and specimens taken for further study.

Growers have also materially aided the work by sending in specimens. These specimens have been examined and the grower advised as to the cause and control of the disease so far as our present knowledge and experience allows.

Unfortunately, nothing is known concerning the control of many diseases of the rose, and but little concerning even some of the most common diseases; and what little is known is mostly of an academical nature rather than of a practical nature and not accessible to the average grower. Every grower who has endeavored to obtain much information upon any rose disease has been brought face to face with this unfortunate situation. It is for the correction of this condition, that members of the American Rose Society have enlisted the services of a plant pathologist to investigate rose diseases and place the information before the growers.

The preliminary survey has shown that the two most common diseases of the rose are the powdery mildew and the black spot, both on indoor and outdoor plants. These diseases have received the most attention of growers and plant pathologists in the past. It has been proved beyond doubt that they are caused by fungi, the life-histories of the causal organisms have been partially worked out, and various suggestions or control offered. Considerable work remains to be done to determine the conditions which favor the development of these diseases and the best methods of treatment. It is the plan of the writer to publish a short article in the trade papers, in the near future, upon each of these diseases in which the known facts concerning them will be placed before the growers.

However, the survey has revealed the fact that other diseases besides mildew and black spot cause rose growers considerable losses. In fact, many greenhouse men claim that these two diseases cause them little worry.

Ophelia and American Beauty plants affected with a serious root- or crown-rot have been received from growers and observed by the writer, in visits to rose houses. The plant decays just below the surface of the soil, usually where the plant "breaks," the developing branches being encircled by the rot. Soon the parts of

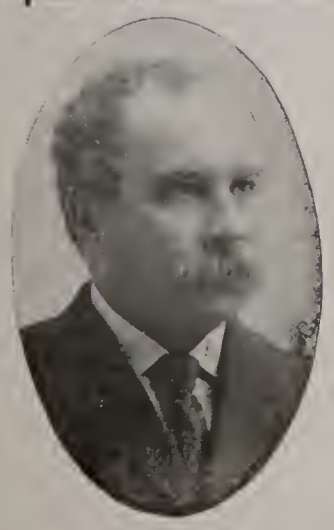
the plant above the ground become yellow and of a sickly appearance as if starved for moisture or food, and die a more or less lingering death. Some growers have kindly furnished samples of plants so affected, and several organisms which may possibly be causing the disease have been isolated from diseased tissue. Inoculations will be made to determine which organism is the cause. The life-history of the pathogene will be studied and an attempt made to work out some method of control. This is necessarily a slow process but will, we trust, result in the discovery of an effective means of controlling the trouble.

Other diseases which have been noted are: (1) crown gall, caused by a bacterial pathogene, affecting the roots and occasionally the stems of both indoor and outdoor roses; (2) Phyllosticta leaf-spot, affecting outdoor roses, chiefly ramblers; (3) other leaf spots and cane diseases of unknown causes. Work upon the cause of the diseases in this last group is now under way. Extensive experiments on the control of leaf-spot diseases of indoor and outdoor roses are being planned and will be tested out as quickly as possible. Reports of progress will be made from time to time.

Some misunderstanding seems to exist among growers in regard to sending specimens for examination. Where desirable a postal card will bring to the grower one or more franked tags which will carry specimens by mail postage free; or the grower may pay the postage, if he so desires. The specimens will be examined and the sender furnished with all available information regarding the cause and control of the disease. Not only members of the American Rose Society, but rose growers in general may take advantage of this opportunity to obtain information relating to rose troubles. By sending specimens the grower will not only help himself but will be materially aiding the project. Specimens will always be appreciated, regardless of whether or not they are of a new or old disease, or of economic importance. It is especially desired at this time to obtain rose plants affected with root diseases.

Address all correspondence to L. M. Massey, Department of Plant Pathology, Cornell University, Ithaca, N. Y.

Obituary.



FRED. W. VICK.

Fred W. Vick, Rochester, N. Y., died at his home, November 12th.

Mr. Vick was born at Rochester in 1855 and was well known in the horticultural world, being a member of the Vick & Hill Company, of which he was head until about three years ago.

The Citronelle Nursery and Orchard Co., Citronelle, Ala., report prospects good for a large trade in Paper Shell Pecan and Satsuma Oranges.

AMERICAN ASSOCIATION OF NURSERYMEN

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STATE AND DISTRICT ASSOCIATIONS.

American Nurserymen's Protective Association—President, Irving Rouse, Rochester, N. Y.; secretary, Thomas B. Meehan, Dresher, Pa. Meets annually in June.

American Retail Nurserymen's Protective Association—President, H. W. Marshall, Arlington, Nebraska; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

Association Oklahoma Nurserymen—President, P. W. Vaught, Holdenville, Okla.; secretary, Jim Parker, Tecumseh, Okla. Next meeting during week of State Fair at Oklahoma City, last of September or first of October.

California Association of Nurserymen—President, John S. Armstrong, Ontario. Secretary, H. W. Kruckeberg, Los Angeles, Cal.

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Idaho Nurserymen's Association—President, Anton Diedricksen, Payette Idaho; secretary, J. F. Litooy, Boise, Idaho. No definite time has been set for next meeting. Probably in July at Boise, Idaho.

Massachusetts Nurserymen's Association—President, G. Howard Frost, West Newton, Mass.; secretary, Winthrop H. Thurlow, West Newbury, Mass.

Mississippi Nurserymen's Association—President, Theodore Bechtel, Ocean Springs, Mississippi; Vice-President, S. W. Crowell, Roseacres, Mississippi; Sec'y-Treas., R. W. Harned, Agr. College.

National Association of Retail Nurserymen—President, F. S. Osborne, Rochester, N. Y.; secretary, F. E. Grover, Rochester, N. Y.

New England Nurserymen's Association—President, Harlan P. Kelsey, Salem, Mass.; Secretary, Charles Adams, Springfield, Mass. Annual meeting held on the last Tuesday in February.

New York State Nurserymen's Association—President, F. S. Osborne, Rochester, N. Y.; secretary, H. B. Phillips, Rochester, New York. Next meeting September. Probably at Utica.

Ohio Nurserymen's Association—President, T. J. Dinsmore, Troy, Ohio; secretary, W. B. Cole, Painesville, Ohio.

Oregon—Washington Association of Nurserymen—President, C. F. Breilhaup, Richland, Wash.; secretary, C. A. Tonneson, Tacoma, Wash.

Pacific Coast Association of Nurserymen—President S. C. Miller, Milton, Oregon; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Place of next meeting to be decided later.

Pennsylvania Nurserymen's Association — President, William Warner Harper, Philadelphia. Secretary, Henry T. Moon, Morrisville, Penna.

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Tennessee State Florists' Association—President, Karl P. Baum, Knoxville, Tenn.; secretary-treasurer, G. M. Bentley, Knoxville, Tenn.

Texas Nurserymen's Association—President, William B. Munson, Deninson, Texas; secretary-treasurer, J. M. Ramsey, Austin, Texas.

Western Association of Nurserymen—President, Lloyd C. Stark, Louisiana, Mo.; secretary-treasurer, E. J. Holman, Leavenworth, Kan. Meets annually second Wednesday in December.

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From the U.S.D. of A.

HOW TO CONTROL THE GRAPE LEAF-FOLDER

The grape leaf-folder, a small "worm" which folds portions of grapevines over it, feeding within this shelter, can be controlled satisfactorily, say entomologists of the U. S. Department of Agriculture. The pest is the larva of a brown moth. Spraying regularly with arsenical solutions, crushing the larvae by hand in the folded leaves during the growing season, and burning all dead leaves and trash under the vines in the fall, are the control measures recommended in a recent publication, Department Bulletin No. 419. by J. F. Strauss.

A satisfactory arsenical for use in combating the leaf-folder is arsenate of lead. This may well be applied in a fungicide such as Bordeaux mixture, a single application then serving as a treatment for disease and other insect pests. The first application should be made shortly after the blossoms fall in the spring. This should dispose of the first brood of grape leaf-folders effectually, but, if the pest appears later, the application should be repeated. It is advisable to burn the dead leaves in autumn, because the insect winters over in its pupal stage in the ground litter. Several parasitic enemies of the insect have been discovered. They are particularly valuable in destroying the pupae.

The grape leaf-folder is distributed throughout the United States, but is most troublesome in the Central and Middle Atlantic States. It attacks both wild and cultivated grapes and a few other plants, including the Virginia creeper. It is injurious to the fruit of the grapevines attacked, since it destroys the foliage at a time when this is most needed to ripen the fruit properly. Often as much as four-fifths of the foliage is destroyed.

The moth, of which the grape leaf-folder is the larva, has dark brown, opalescent wings, bordered with white. The body is black, crossed by two white bands in the female and one in the male. The egg is very minute. The fully grown larva is about an inch long, yellow-green on the sides and somewhat darker above with scattered, fine, yellow hairs on each segment.

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ESTABLISHED 1893 **THE NATIONAL NURSERYMAN** INCORPORATED 1902

The only Trade Journal devoted exclusively to the interests of growers and dealers in nursery stock.

Edited by a practical nurseryman, Ernest Hemming, Flourtown, Pennsylvania, to whom all correspondence pertaining to the Editorial Department, should be addressed.

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Hatboro, Penna.

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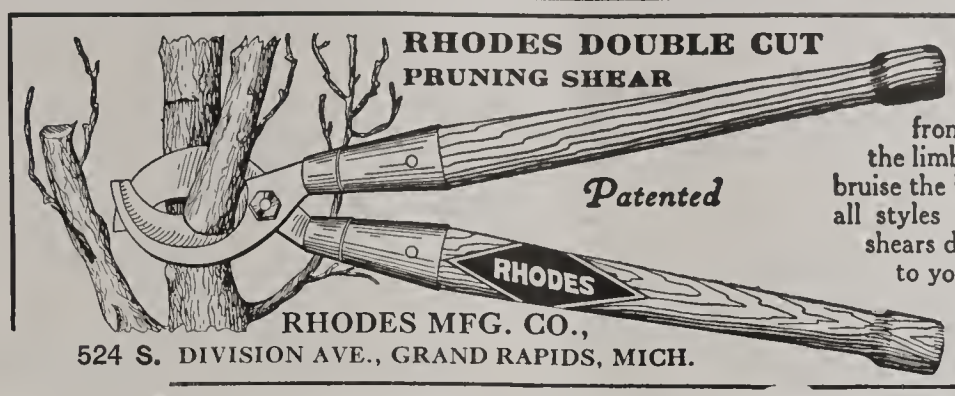
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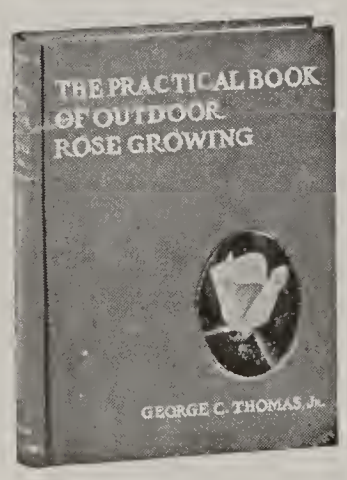
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Rhododendrons best hardy var.
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in Extra-Large Sizes

You are thoroughly alive to the fact that Norway Maples are "head liners" among the desirable trees for street planting, for grouping in the landscape, and as single specimens.

The important point is to get **good** trees; trees that were properly spaced in the nursery row so that the early development was not retarded, then transplanted to encourage root growth, trained to a well-formed head, and properly cultivated so that the trees are strong and with sufficient vitality to stand the shock of transplanting.

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Send us a list of your requirements—it will be a pleasure for us to submit special prices.

5,000, 7 to 8 ft., 1 in.	10,000, 2½ to 3 ins.
10,000, 8 to 10 ft., 1 to 1½ ins.	5,000, 3 to 3½ ins.
15,000, 10 to 12 ft., 1½ to 1¾ ins.	1,000, 3½ to 4 ins.
15,000, 12 to 14 ft., 1¾ to 2 ins.	3,000, 4 ins.
10,000, 14 to 16 ft., 2 to 2½ ins.	125, 6 ins.
	125, 5 ins.

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For several years we have been getting ready to make a drive on Koster's Blue and Colorado Blue Spruces. The trees have been carefully grown, root-pruned, transplanted as needed, and now they are ready to be shipped.

We will sell them at prices that will be attractive to the man who buys in quantities. If your plans call for a thousand trees, or as few as ten, write us for prices on

Koster's Blue and Colorado Blue Spruce

Spruce, Koster's Blue	
300, 18 to 24 in.	300, 3 to 4 ft.
300, 2 to 3 ft.	300, 4 to 5 ft.
200, 5 to 6 ft.	

Spruce, Colorado Blue	
200, 2 to 3 ft.	100, 4 to 5 ft.
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No other evergreens are so effective for mass plantings in city parks, private grounds and cemeteries. Our trees are well-branched, shapely specimens, have splendid roots, are carefully burlapped and packed. These trees are superb specimens—you can plant them with the utmost confidence in their quality and vigor.

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